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PERSONAL.

Mr. Fred S. Berry, civil engineer, of Concord, N. H., was married March 30 to Mrs. Flostina C. Stratton.

Mr. Ralph Herbert Hosmer, civil engineer, of Sterling Center, Mass., was married March 23 to Miss Ethel Louise Roper.

Mr. W. North Robins, civil engineer, formerly of South Williamsport, Pa., has been appointed Draftsman in the Map Department of the City Engineering Office of Syracuse, N. Y.

Mr. C. McC. Lemley, of Baltimore, Md., Consulting Engineer of the Washington, Arlington & Mt. Vernon R. R., has been elected Chief Engineer of the Myersville & Catoctin Electric Ry.

Mr. Montgomery A. Kellogg, Chief Engineer of Construction of the Park Department of New York city, is seriously ill. He has been connected with the department since 1858 and has been the Chief Engineer since 1871.

Messrs. S. Perry Sellon, W. M. Mordey and C. E. Hodkin, electrical engineers of the Falcon Works, Loughboro, Leicestershire, England, are in Pittsburg, Pa., for the purpose of purchasing machinery for their works.

Dr. E. H. Maynard has been elected President of the Board of Water Commissioners of Nyack, N. Y., to succeed Mr. George Dickey. Mr. A. E. Christie has been appointed a Commissioner.

Mr. George W. Brill, trainmaster of the Mahanoy and Hazleton Division of the Lehigh Valley R. R., with headquarters at Delano, Pa., has been appointed Acting Division Superintendent of that division to succeed Mr. Alonzo P. Blakslee, resigned.

Sir Thomas Tancred, civil and consulting engineer, of London, England, is in the United States on his way to Alaska, where he is to examine, on behalf of English capital, into the feasibility of constructing a railway to Fort Selkirk, by way of Chilkat, Chilkoot or White Passes.

Mr. E. C. Felton, President of the Pennsylvania Steel Co., Steelton, Pa., has been elected President of the Buffalo Valley R. R. Mr. Mason D. Pratt, chief engineer of the same company, has been elected Vice-President, and Mr. Felton Bent, of Philadelphia, has been elected Secretary and Treasurer. Mr. George A. Ricker, Assoc. M. Am. Soc. C. E., of Buffalo, N. Y., has been appointed Chief Engineer.

Mr. Chauncey M. Depew, President of the New York Central & Hudson River R. R., with offices in New York city, has been elected chairman of the Boards of Directors of this road and of the Lake Shore & Michigan Southern Ry., the New York, Chicago & St. Louis R. R. and the Michigan Central R. R. Mr. S. R. Callaway, President of the Lake Shore & Michigan Southern Ry., with headquarters in Cleveland, O., has been elected to succeed him as President of the New York Central & Hudson River R. R. Mr. Cornelius Vanderbilt will retire as chairman of the New York Central & Hudson River R. R. and Mr. William K. Vanderbilt will retire as chairman of the Lake Shore & Michigan Southern Ry. and the New York, Chicago & St. Louis R. R.; they will remain in the directorates, however, of the respective roads. Mr. H. B. Ledyard will retain his position as President of the Michigan Central R. R.

OBITUARY.

Mr. Geo. W. Morris, a well-known contractor of St. Joseph, Mo., died March 30, aged 64 years.

Mr. James H. Hamilton, of the Philadelphia Brick Mfg. Co., Philadelphia, Pa., died March 28, aged 43.

Mr. Arnout Cannon, architect, of Poughkeepsie, N. Y., committed suicide March 31. He was a member of the firm of Cannon & Lloyd, architects, and was 39 years of age.

Col. Augustus P. Duer, civil engineer, of West Chester, Pa., died March 28, aged 80. He graduated from the United States Military Academy, West Point, N. Y., in 1837.

Mr. Percival Roberts, President of the A. & P. Roberts Co., proprietors of the Pencoyd Iron Works, Philadelphia, Pa., died March 30, aged 66. He was born in Montgomery County in that state, and in 1852, with his brother, Mr. Algernon Roberts, built a forge near Manayunk, in the neighborhood of Philadelphia, which was the foundation of the present Pencoyd Iron Works.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

DENVER SOCIETY OF CIVIL ENGINEERS.
Apr. 8. Secy., W. B Lawson, 36 Jacobson Bldg, Denver, Colo.
ST. LOUIS RAILWAY CLUB.
Apr. 8. Secy., H. H. Roberts, 511 Commercial Bldg., St Louis, Mo.
MONTANA SOCIETY OF ENGINEERS.
Apr. 9. Secy., Albert S. Hovey, Helena, Mont.
INDIANAPOLIS ENGINEERING CLUB.
Apr. 9. Secy., Edson F. Folsom, Indianapolis, Ind.
ENGINEERS' CLUB OF KANSAS CITY.
Apr. 11. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo
LOUISIANA ENGINEERING SOCIETY.
Apr. 11. Secy., F. E. Pratt, 720 Madison Ave., New Orleans, La.
NORTHWEST RAILWAY CLUB.
Apr. 12. Secy., T. A. Foque, Soo Line, Minneapolis Minn.
CIVIL ENGINEERS' CLUB OF CLEVELAND.
Apr. 12. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.
NEW ENGLAND RAILROAD CLUB.
Apr. 13. Secy., Edward L. Jones, P. O. Box 1158, Boston, Mass.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
Apr. 14. Secy., C. A. McNab, 112 Mansfield St., Montreal, Can.
ENGINEERING ASSOCIATION OF THE SOUTH.
Apr. 14. Nashville, Tenn. Secy., C. B. Wilson, Nashville, Tenn.
BROOKLYN ENGINEERS' CLUB.
Apr. 14. Secy., A. J. Provost, Jr., 191 Montague St. Brooklyn, N. Y.
CHICAGO ELECTRICAL ASSOCIATION.
Apr. 15. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.
THE ENGINEERS' CLUB OF PHILADELPHIA.
Apr. 16. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.
ENGINEERS' CLUB OF COLUMBUS.
Apr. 16. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.
TECHNICAL CLUB OF OMAHA.
Apr. 18. Secy., J. Harry Lawrie, Omaha, Neb.
ENGINEERS' CLUB OF MINNEAPOLIS.
Apr. 18. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.
WESTERN RAILWAY CLUB.
Apr. 19. At Purdue University. Secy., F. M. Whyte 225 Dearborn St., Chicago, Ill.
ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Apr. 19. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg Pa.
ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Apr. 19. Secy., Jas K. Zollinger, 16 Norton Bldg., Louisville, Ky.
BOSTON SOCIETY OF CIVIL ENGINEERS.
Apr. 20. Secy., S. E. Tinkham, City Hall, Boston, Mass
WESTERN FOUNDRYMEN'S ASSOCIATION.
Apr. 20. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.
ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Apr. 20. Secy., Frank H. Olmsted, Los Angeles, Cal.
ENGINEERS' CLUB OF ST. LOUIS.
Apr. 20. Secy., Richard McCulloch, St. Louis, Mo.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Apr. 20. Secy., C. W. Hunt, 220 West 57th St., New York city.
WESTERN SOCIETY OF ENGINEERS.
Apr. 20. Discussion, "Electrical, Pneumatic and Mechanical Transmission in Manufacturing Establishments." Secy., N. L. Litten, Monadnock Block, Chicago, Ill.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Apr. 21. Secy., F. A. Charpiot, Macon, Ga.
ENGINEERS' CLUB OF CINCINNATI.
Apr. 21. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O
NEW YORK RAILWAY CLUB.
Apr. 21. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.
FRANKLIN INSTITUTE.
Apr. 26. "The Multiple Unit System of Electric Railways" Frank J. Sprague. Secy., Wm. H. Wahl, 15 S. 7th St., Philadelphia, Pa.
AMERICAN INSTITUTE ELECTRICAL ENGINEERS.
Apr. 27. Secy., R. W. Pope, 26 Cortlandt St., New York city.
ENGINEERS' SOCIETY OF WESTERN NEW YORK
May 2. Secy., H. J. March, Library Bldg., Buffalo, N.Y.
CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
May 2. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
May 6. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.
RAILWAY SIGNALING CLUB.
May 10. Secy., Earl M. Seitz, Signal Engr., C. & N. W. Ry., Chicago, Ill.
CENTRAL RAILWAY CLUB.
May 13. Secy., H. D. Vought, 114 Fifth Ave., New York city.
ILLINOIS STREET RAILWAY ASSOCIATION.
May 18. Annual meeting. Secy., C. K. Minary, Springfield City R. R., Springfield, Ill.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
May 30, June 4. Spring meeting Niagara Falls, N. Y. Secy., Prof. F. R. Hutton, 12 W. 31st St., New York city.

THE PITTSBURG FOUNDRYMEN'S ASSOCIATION.—At a regular meeting, held March 28, Mr. Chas. W. Friend, of the Clinton Iron & Steel Co., read a paper on "The Manufacture of Foundry Pig Iron."

ENGINEERS' SOCIETY OF WESTERN NEW YORK.—The regular meeting of this society was held April 4. The address of the evening on "Coast Defenses and Fortifications," was delivered by Maj. T. W. Symons, U. S. Engrs.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.—This club held a well-attended meeting on March 21, at which Mr. Richard Montfort, Chief Engineer Louisville & Nashville R. R., read a paper entitled "The Maintenance of Railway Rails and Joint Fastenings."

Jas. K. Zollinger, Secy.

NEW YORK ELECTRICAL SOCIETY.—The 186th meeting of this society was held on March 30. Mr. Frank E. Knight read a paper on "The Influence of Electric Railroads on Population and Land Values in Cities." This was followed by a practical demonstration of the Marconi system of wireless telegraphy, given by Mr. W. J. Clarke, who also explained an apparatus known as the Fluorometer, which is used as a surgical adjunct of the X-rays.

ENGINEERING SOCIETY OF ROCHESTER.—At a special meeting, held April 2, Mr. E. Kuichling, chief engineer of the city water-works, read a paper entitled "The Dimensions of the Hubs of Water Pipes." Extended reference was made to the matter of calking when lead is used.

WISCONSIN ENGINEERS' SOCIETY.—The 2d annual convention of this society was held March 31 at Appleton, Wis. Routine business was transacted, papers were read and the following officers elected for the ensuing year: Pres., B. F. Dunn, Antigo; Secy.-Treas., F. J. Harriman, Appleton. The next convention will be held at Wausau, March, 1899.

NORTHWESTERN ELECTRICAL ASSOCIATION.—Mr. Thomas R. Mercein, secretary of the association, announces that the large lake steamer "Northwest" has been secured for the summer meeting of the association, announced in our last issue. Further information may be obtained by addressing Mr. J. M. Hill, 1240 Monadnock Block, Chicago.

AMERICAN SOCIETY OF IRRIGATION ENGINEERS.—The 5th annual meeting of this society was held at Denver, Colo., on March 25-26. Reports of the officers were submitted and the various papers offered were referred to the Committee on Publication. Officers for the ensuing year were elected as follows: Pres., Elwood Mead, State Engineer, Cheyenne, Wyo.; Vice-Pres., Walter H. Graves, Engineer of Irrigation, Crow Indian Reservation, Mont.; Secy.-Treas., Capt. John S. Titcomb, Denver, Colo.; Directors, William Pearce, Chief Inspector of Mines, Calgary, Canada; Robert B. Stanton, Coronado, Cal., and Chas. L. Stevenson, Salt Lake City, Utah, all Past Presidents, being also directors ex-officio.

John S. Titcomb, Secy.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—In the March "Nineteenth Century" Prince Kropotkin writes on "Some of the Resources of Canada." It is interesting to note that Canada supplies nearly three-fourths of all the cheese that Great Britain imports. Another writer tells of the industrial future of Manchuria, and describes the wealth of timber and mineral resources which that country possesses, and the development of which is likely to begin with the opening of the Trans-Siberian railway. The "Fortnightly Review" contains a caustic description of the recent great engineers' strike in Great Britain and the causes which led up to it. Its author betrays a good deal of partisanship, but his account is of interest to every student of labor disputes and the questions at issue in them.

We find in "Harper's" for April a paper which deserves thoughtful study by every engineer and business man interested in the project for an Isthmian canal. It is from the pen of Mr. Worthington C. Ford, the well-known government statistician, and its title is "Commercial Aspects of the Panama Canal." Mr. Ford's paper is a discussion of the question, What traffic would probably seek the Panama Canal if it were built? and he reaches the conclusion that the commerce now in sight which would use such canal is not sufficient to warrant its construction as a profitable enterprise, and the prospects for its rapid growth are not at all encouraging. Mr. Ford says further that it is not a valid argument to cite the Suez Canal's financial history as proof of the value which a Panama canal would have, for the conditions at the American isthmus are totally different. Mr. Ford makes no mention whatever of the Nicaragua Canal, but we are unable to see why, if his conclusions are correct, they do not apply as well to a canal at Nicaragua as at Panama. A vast deal of glittering generalities have been written concerning the enormous traffic which a canal across the American isthmus would secure; but of any careful, statistical studies of the question by competent experts the public has seen very little, and Mr. Ford's article should be welcome to any one who desires to study this subject.

In "Scribner's," the series of articles describing the experiences of a young man working as a laborer is resumed and the story is told of how a member of the army of unemployed lived in Chicago in the winter of 1892-3. In the editorial department of the same magazine we find a criticism of the new porches which have been added to Trinity Church, in Boston, that will interest our readers interested in architecture.

In the April "Atlantic Monthly," Prof. Henry C. Adams, who has been the Statistician of the Interstate Commerce Commission ever since its establishment, writes on "A Decade of Federal Railway Regulation." It is a brief review of what the Interstate Commerce Law has done in the ten years since it was enacted, and also what it has not done. The article is one which everyone interested in the current discussion respecting the proposed amendment of the Interstate Commerce law should not fail to read.

"Appleton's Popular Science Monthly" opens with a review of the great strike of the English engineers, from the pen of Mr. S. N. D. North. A paper on "The Electrical Transmission of Water Power," by Wm. Baxter, treats the subject in a popular way. Mr. Worthington C. Ford, whose paper on the Panama Canal we note above, writes in this magazine upon "The Question of Wheat," and gives a brief account of the changes in the market price and their causes during the past generation.

The April "Cosmopolitan" has a chatty paper on "Mine Salting" and a description of what is said to be the only successful tea plantation in the United States. Mr. John Brisben Walker writes on "The Power of the Speaker in the House of Representatives," and very forcibly criticises the parliamentary practice which at present obtains in the House of Representatives.

The "Pall Mall Magazine," one of the English popular magazines, is a new addition to the list reviewed monthly in this column. It is published in this country by A. E. Keet, Astor Court Building, New York. In the April number is begun a series of papers on "The Evolution of Comfort in Railway Travelling." The first article describes the passenger coaches used on English railways from the days of the Stockton & Darlington Ry. to the present time.

In the April "Century" we find a collection of articles devoted to the Pennsylvania coal mining regions. The scenes in a colliery village in the anthracite regions are described by two writers, while two others discuss the economic importance of the coal deposits and their probable duration. An article of still greater interest and much greater novelty is a description of the new process of "telegraphing without wires," as it has been generally called, or as the writer of this article prefers to call it, telegraphing with sparks. The paper is from the pen of Dr. Slaby, of Charlottenburg, himself an experimenter in this field. Dr. Slaby warmly praises Marconi, the young Italian, who is now generally conceded to be the first really successful inventor in this field. It may be noted that Dr. Slaby has sent messages over a distance of 21 kilometers, and Marconi has sent them from a battleship to the shore, 16.3 kilometers distant. Another article in the same magazine which possesses peculiar interest just now is an account of the famous naval battle between the Peruvian ironclad "Huascar" and the Chilian vessels in the war of 1879.

"The Review of Reviews" is chiefly of interest this month for its broad discussion of current political topics; but we find also in it a description of the new gold fields in the Mexican Sierras, and an account of the purchase of the Swiss railways by the Government. In the North American Review, Lieut. J. H. Gibbons writes on "The Great Lakes and the Modern Navy," and endeavors to show that the country's future strength will be found in the shipyards on the Lakes, and the sailors who man the Lake vessels. He states that "it has been demonstrated that the economic changes which will be brought about by a deep-water route from the Great Lakes to the seaboard will enable us to compete with England in the ocean carrying trade." It is to be regretted that the Lieutenant does not inform us by whom, when and where this demonstration was made. An interesting paper describes the use made of balloons in the siege of Paris. Mr. H. P. Robinson, of the "Railway Age," discusses the bearings of the recent Supreme Court decision respecting the extent to which a state can go in the reduction of railway rates by legislation. He assumes that 70% of the gross earnings are required on the average to pay operating expenses and taxes, and shows that the 30% remaining if considered as 6% of the value of the road makes the average value per mile of the railways in different states vary from $14,320 in North Carolina to $93,880 in New Jersey. The table in which Mr. Robinson presents these figures has been compiled by himself, but he has made at least one gross error. He puts Vermont at the head of the list, with average gross earnings per mile of railway of $18,932. As a matter of fact the average earnings per mile of the railways in the state of Vermont are less than half of this sum, as Mr. Robinson will find by referring either to Poor's Manual or the Interstate Commerce Commission's statistics.

HANDBOOK OF THE CITY OF ATLANTA, GA.—A Comprehensive Review of the City's Commercial, Industrial and Residential Conditions. Issued Jointly by the Atlanta City Council and the Atlanta Chamber of Commerce. Paper; 6½ x 9½ ins.; pp. 111; over one hundred illustrations. Mailed without charge on application to Mr. V. V. Bullock, Secretary of the Chamber of Commerce, Atlanta, Ga.

This handbook is sensibly and handsomely gotten up. It gives a good idea of the city of Atlanta, its various industries and attractions.

MECHANICAL ANALYSIS AND WATER CONTENT OF WYOMING SOILS. By C. B. Ridgway, Physicist and Meteorologist. Bulletin No. 32, Wyoming Experiment Station. Paper; 5½ x 9 ins.; pp. 28; tables and illustrations. Address Director Experiment Station, Laramie, Wyo.

This pamphlet is of course designed for the agriculturists of the State of Wyoming. It contains matter which will doubtless prove of interest to many having to do with irrigation and with sewage farming.

ROAD MATERIAL AND ROAD BUILDING IN NEW YORK. By Frederick J. H. Merrill, Ph. D., Director New York State Museum. Bulletin of the Museum, Vol. IV., No. 17. Albany: University of the State of New York. Paper; 7 x 10 ins.; pp. 46; plates and two folding maps in pockets; tables.

This pamphlet contains a brief discussion of the problem of road improvement in the State of New York; of the essentials of earth, gravel, macadam and telford road construction, and of the testing of road material. It also gives a list of the producers of road metal in the state, and of the quarrymen, whether producers of road metal or not. A number of half tones showing road construction in Massachusetts are included. One of the folding maps shows the geological distribution of road materials in the state, and the other shows the locations of quarries of stone used for building purposes and for road metal.

IRRIGATION IN MESILLA VALLEY, NEW MEXICO, By F. C. Barker. Water Supply and Irrigation Papers of the United States Geological Survey, No. 10. Paper; 6 x 9 ins.; pp. 50; eleven plates and five figures in the text. Address Members of Congress or The Director, United States Geological Survey, Washington, D. C.

This paper gives a good idea of the methods of irrigation in a section of the country where the art has been practiced for centuries, according to the author. Maps, diagrams and half tones are used to add clearness and interest to the paper.

PAPERS READ BEFORE THE ENGINEERING SOCIETY OF THE SCHOOL OF PRACTICAL SCIENCE, Toronto. Editor, A. T. Laing, B. A. Sc. Paper, 8¾ x 6 ins.; pp. 186; illustrated. 50 cents.

Contents: President's Address, C. F. King; Notes on Stamp Mills, J. W. Bain; "Roads and Streets in Ontario," A. W. Campbell; "Specifications for Sidewalks," A. J. McPherson; "The High Building Problem," W. B. Mundie; "Niagara Falls Sewerage System," J. B. Goodwin; "The Gas Engine," R. W. Angus; "Concrete on Trent Valley Canal," H. F. Greenwood; "Hydraulic Mining in British Columbia," J. W. Tyrrell; "Foundations for a 20-Story Building," T. K. Thomson; "On Snowshoes from the Barren Lands," J. W. Tyrrell; "Air Compressors," H. V. Haight; "Municipal Engineering in Ontario," H. J. Bowman; "Constructing Strength of White Pine," A. H. Harkness; "Tests on Tensile Strength of Steel Boiler Plate," J. A. Duff.

PROCEEDINGS: ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS, 1897.—S. F. Patterson, Secretary, Concord, N. H. Paper, 6 x 9 ins.; pp. 277; illustrated.

This is a full report of proceedings of the Association at its annual convention at Denver, Colo., Oct. 19, 20 and 21, 1897. Among the papers and special committee reports the following, with the discussion accompanying them, may be mentioned: "Methods of Heating Buildings Where Three or More Stoves are now Used"; "The Most Suitable Material for Roofs of Buildings of all Kinds"; "Care of Iron Bridges after Erection"; "How to Determine Size and Capacity of Openings for Waterways"; "Designs for Ice-Houses"; "Best End Construction of Trestles Adjoining Embankments"; "Bridge Warnings for Low Overhead Structures"; "Stock-Yards and Stock-Sheds, Including all Details of Construction"; "Bridge Floors"; "Pile-hammer Ropes"; "Gas Engines for Pumping Water."

PARK COMMISSION OF ESSEX COUNTY, N. J.—Report for 1897. Landscape Architects and Engineers, John Bogart and Nathan F. Barrett; Engineer-in-Charge, Howard J. Cole; Secretary, Alonzo Church, 800 Broad St., Newark, N. J. Limp cloth, 6 x 9 ins., pp. 47; plates. Address the secretary, as above.

The Essex County Park Commission was appointed under a legislative act passed early in 1895 and was empowered by popular vote to expend $2,500,000 for the acquisition and development of a park system designed to meet the needs of the whole county. Essex County now has a population of 300,000 or more, of which about 200,000 is included in Newark and 20,000 in Orange, the only two cities in the county. The balance of the county, however, has a rapidly growing suburban population. When the commission was formed there were practically no parks in the whole county. The commission has spent the greater part of its $2,500,000 in acquiring real estate and has requested $1,500,000 more for this purpose and for improving the property bought. The voters of the county will pass upon this request on April 12. The amount of land acquired thus far is about 2,500 acres, some of which cost as little as $75 an acre. One comparatively small tract of land in the city of Newark cost some $500,000, with as much more for buildings standing on it. This illustrates the costliness of neglecting to secure land for parks while it is cheap. Editorial comment on the report, including some further description of the park system, is given elsewhere in this issue. The report contains a number of very fine illustrations of the scenery in the new parks; also a large map of the whole park system and detailed maps of the smaller parks.

TRADE PUBLICATIONS

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

STEAM ENGINES.—The Edward P. Allis Co., Milwaukee, Wis. Pamph.; 9¼ x 7 ins.; pp. 183.

FLOUR MILL MACHINERY.—The Edward P. Allis Co., Milwaukee, Wis. Pamph.; 7 x 9¼ ins.; pp. 136.

POWER PRESSES.—The Waterbury Machine Co., Waterbury, Conn. Pamph.; 6¼ x 6¾ ins.; pp. 42.

This pamphlet illustrates a variety of power presses.

ROTARY FORCE PUMPS.—P. H. & F. M. Roots Co., Connersville, Md. Pamph.; 9 x 7 ins.; pp. 22.

This pamphlet describes the advantage of rotary over other forms of pumps.

VERTICAL GAS AND GASOLINE ENGINES.—Frontier Iron Works, Detroit. Circular; pp. 4.

The gas engines described in this circular are of the vertical type; sizes 1 to 10 HP.

GAS AND GASOLINE ENGINES.—The F. M. Watkins Co., Cincinnati, O. Pamph., 6 x 9 ins.; pp. 20.

This pamphlet illustrates and describes horizontal and gasoline engines of from 2 to 25 HP. capacity.

ROTARY POSITIVE BLOWERS.—P. H. & F. M. Roots Co., Connersville, Md. Pamph.; 7 x 10 ins., pp. 18.

This catalogue illustrates and describes the latest forms of the well-known Roots positive blower.

MACHINE TOOLS.—Woodward & Rogers, Hartford, Conn. Pamph.; 6 x 9 ins.; pp. 28.

This catalogue illustrates sensitive drills, surface grinders, cutter grinders, tapping machines, etc.

RADIATOR VALVES FOR STEAM AND WATER.—Frontier Iron Works, Detroit, Mich. Pamph.; 3½ x 6 ins.; pp. 24.

A price list of valves and other fittings for steam and hot water radiators.

ROAD CROSSING SIGNALS.—The American Signal Co., Baltimore, Md. Pamph.; 9 x 6 ins.; pp. 24; illustrated.

This pamphlet illustrates and describes in some detail the automatic electric bell highway crossing signal manufactured by the above company.

MACHINERY AND TOOLS.—Harvey Hubbell, Bridgeport, Conn. Pamph.; 5½ x 6¾ ins.; pp. 30.

The machines iluustrated in this catalogue include horizontal tapping machines, small riveting machines, a screw slotter, and some small hand tools.

FIRE APPARATUS.—Rumsey & Co., Limited, Seneca Falls, N. Y. Paper, 11 x 7 ins.; pp. 82; illustrated.

This is the fifty-first edition of this catalogue. It is chiefly devoted to illustrated descriptions of hook and ladder trucks, hose wagons and hand fire engines.

GAS ENGINES.—The Brighton Gas Engine. Pierce-Crouch Engine Co., New Brighton, Pa. Pamph.; 5¼ x 6½ ins.; pp. 15.

The Brighton gas engine of the horizontal type is built in sizes from 5 to 50 HP. A vertical engine is built in sizes from ½ to 3½ HP.

HOISTING ENGINES.—The De La Vergne Refrigerating Machine Co., foot of East 138th St., New York. Pamph., 6 x 9 ins.; pp. 40.

This catalogue illustrates several styles of hoisting engines, with boiler, adapted for contractors' and general hoisting purposes.

ICE AND REFRIGERATING MACHINERY.—The Edward P. Allis Co., Milwaukee, Wis. Pamph.; 7 x 9¼ ins.; pp. 92.

The three pamphlets whose titles are given above describe and illustrate the leading productions of one of the most famous engine building works of the United States. They are all handsomely printed and illustrated.

FOOT AND POWER PRESSES, DIES, ETC.—Ferracute Machine Co., Bridgeton, N. J. One sheet; 24 x 38 ins.

This is a sheet full of wood cuts of a great variety of machinery for punching and stamping sheet metals. The sheet is designed to be tacked up in a shop for reference. The company also issues a catalogue.

WATER-WHEELS.—The Pelton Water-Wheel Co., San Francisco, Cal. New York Office, 143 Liberty St. Pamph.; 7 x 10 ins.; pp. 98.

This pamphlet describes the well-known Pelton wheel, and shows a great variety of styles and methods of application for compressed air, driving dynamos, etc. It also contains several useful hydraulic tables.

WIRE DRAWING MACHINERY.—The Waterbury Machine Co., Waterbury, Conn. Pamph.; 6¼ x 7 ins.; pp. 52.

Machines for continuous wire drawing, many of them recently patented, are illustrated in this pamphlet. One of the new machines draws wire from ¼ or ⅜-in. diameter to No. 10 or 12 B. & S. gage, through seven dies, the machine occupying a floor space of 8½ x 6 ft.

THE MILLER AUTOMATIC SIPHON FOR INTERMITTENT FLUSH TANKS.—Pacific Flush Tank Co., 84 La Salle St., Chicago, Ill. Paper; 3 x 5½ ins.; pp. 16; illustrated.

This pamphlet consists mostly of testimonials from those who have used the Miller siphon. Dimensions, prices and a table of notes of discharge are also given.

PLACER MINING.—The Bennett System of Placer and River-Bed Mining. Bennett Amalgamator Mfg. Co., Denver, Colo. Pamph.; 9½ x 6 ins.; pp. 80.

This pamphlet illustrates and describes the Bennett combined apparatus for dredging and amalgamating, of which an illustration and description were given in our issue of March 24.

FAN BLOWERS.—The Fuller Co., Detroit, Mich. Pamph.; 9 x 4 ins.; pp. 8.

The fans illustrated in this circular are of the disk type, with twelve blades, each formed to a true helical or screw pitch. Electric motors for driving them are also furnished.

TOOLS AND MACHINES.—Barnes Tool Co., New Haven, Conn. Pamph.; 6 x 9 ins.; pp. 20.

This catalogue illustrates a variety of wrenches, pipe clutches and other hand tools; also hand and foot power sawing machines, steering wheels for vessels, miter cutting and match box machinery, etc.

DRAINAGE AND SANITARY SPECIALTIES.—Frank Airy & Co., 23 N. Juniper St., Philadelphia, Pa.

Price lists, illustrating and describing sink and drain strainers and disinfectors; traps; air-vents, etc. Advantages claimed: efficiency and ease of removal and cleaning.

GATES, HYDRANTS, SUPPLIES.—J. O. Frost's Sons Manufacturing Co., Towanda, Pa. Pamph.; 6 x 3½ ins.; pp. 15.

An illustrated price-list for double-gate valves, compression fire-hydrants; automatic air-valves, valve-boxes, standard flanges for wrought-iron pipes; sleeves and specials, and tools for pipe-laying and handling hydrants, etc. The Eastern agents are the John Simmons Co., 106-110 Centre St., New York.

ROESKE'S PATENT WATER FILTER.—Reilly & Peyton, 1154 North Third St., Philadelphia, Pa. Paper; 13 x 6 ins.; pp. 27; illustrated.

The filter here described is of the mechanical type. Instead of using alum, iron particles and air are admitted to the water before it goes to the filter tanks. Several large plants are mentioned as being already in use.

THE BENEFITS OF DRAINAGE AND HOW TO DRAIN. —New York State Drain Tile and Brick Works, John H. Jackson, Albany, N. Y. Paper, 6 x 9 ins.; pp. 53; illustrated.

This is a short essay on the art of drainage, followed by testimonials from customers of the above-named firm and price list of drain tile and tools used in drainage work.

REFUSE DESTRUCTORS.—The Horsfall Furnace Syndicate, Ltd., Engineers and Contractors, Athenaeum Buildings, Park Lane, Leeds, England; Hew Miller, Assoc. M. Am. Soc. C. E., Agent, 51 East 44th St., New York City. Paper; 8 x 13 ins.; one pamphlet, pp. 5, and one not paged.

These two pamphlets give some interesting information about the Horsfall garbage furnace, showing where it is in use and quoting from "Engineering" an article on a furnace of this type erected at Oldham, England.

METAL SPANISH TILES.—Merchant & Co., Philadelphia, New York and Chicago. Paper; 8 x 5½ ins.; pp. 24. Also 9 x 5 ins.; not paged. Both illustrated.

These two pamphlets describe metal Spanish tiles and Gothic shingles, made of copper, galvanized steel, zinc and terne plates. A number of handsome illustrations are presented showing buildings on which the products of the company have been placed.

GATE VALVES FOR STREET-MAIN INTERSECTIONS. —Viney Independent Gate Valve Co., Lippincott Building, Philadelphia. Paper; 5 x 7 ins.; pp. 21; illustrated.

This is a priced catalogue of 3, 4 and 5-way valves made for use at street intersections, thus doing away with two or more shut-off valves and boxes, as are sometimes used. The company also make ordinary valves and fire hydrants.

STEEL GEARS AND PINIONS.—General Electric Co., Schenectady, N. Y. Pamph., 4¼ × 6½ ins.; pp. 14.

The General Electric Co. has established at its River Works in Lynn, Mass., a complete plant for the manufacture of cast steel gears and pinions, including a steel foundry and a machine shop equipped with automatic gear cutting machines. The pamphlet gives views of the plant and of some of its products.

GASOLINE HOISTING ENGINES.—Weber Gas & Gasoline Engine Co., Kansas City, Mo. Pamph.; 9¼ × 6 ins.; pp. 16.

This pamphlet illustrates the application of the Weber gasoline engine to friction and geared hoisting engines. They are made for the heaviest kind of service. They can be arranged to be operated with either city gas, gasoline, distillate, naphtha, benzine or crude oil. They are usually arranged for using 74° gasoline.

DECREE OF THE COURT.—Requiring the Removal of Infringing New York Air Brakes from the Cars of the Buffalo, Rochester & Pittsburg Ry. Pamph.; 7 × 11 ins.; pp. 7.

This pamphlet reprints the court decree in the first suit brought by the Westinghouse Air Brake Co. against a railway company for using air brakes which infringe its patents. Appended is a formal review of the litigation over air brake patents between the Westinghouse and New York companies.

SLIDING GRATES.—The Jarvis Mfg. Co., 277 Dearborn St., Chicago, Ill. Pamph.; 8 × 5½ ins.; pp. 16.

This pamphlet describes a new form of movable grates for steam boilers. The grate is formed of sections of short bars which may be given a sliding motion for removing fine ashes, and also a rocking and dumping motion for breaking and removing clinkers. The operation of the grate is quite novel.

WIRE FENCING.—Lamb Wire Fence Co., Adrian, Mich. Paper, 6½ × 6¼ ins.; pp. 8.

The Lamb fence has rectangular meshes formed by longitudinal wires secured to vertical wires by wrapping wire, the vertical wires being perfectly straight. The longitudinal wires are coiled before use, so that when made into the fence they have a spiral twist which makes the fence elastic and allows for contraction and expansion.

DETROIT & MACKINAC RAILWAY CO.—J. D. Hawks, President and General Manager, Detroit, Mich. Paper, 9¾ × 7¼ ins.; pp. 61; illustrated.

Under the title of "The Birth of Ocqueoc, a Legend of Presque Isle," we have here effectively told and handsomely illustrated the beginning of the new town of Ocqueoc, on an extension of the Detroit and Mackinac Railway. The tale of this place, however, takes up but a small part of the publication, as the bulk of the pamphlet is devoted to a condensed but satisfactory description of the more prominent towns on the line of the railway from Bay City to Mackinaw. The half-tone illustrations are excellent.

STEAM SHOVELS.—Vulcan Iron Works, Toledo, O. Paper, oblong, 12 × 8 ins.; pp 12, and 6 × 5½ ins.; pp. 12.

The larger pamphlet contains a set of handsome line engravings of the "Little Giant" and "Giant" steam shovels of 25 to 90 tons. A special feature of the design is the almost exclusive use of metal throughout, even of the frames for the housing. A 93-ton "Giant" was illustrated in an issue of Feb. 3, and one of the 90-ton machines at the iron mines of Minnesota loaded 6,418 cars with ore in one month (working day and night), this representing about 170,000 gross tons. The dimensions of the parts, and the sizes and prices of the machines are given. The smaller pamphlet is devoted to a special shovel for trench work, in which the bucket cuts toward instead of away from the machines.

GASOLINE LAUNCHES.—Sintz Gas Engine Co., Grand Rapids, Mich. Harms & Kupfer, Agents, 68 Trinity Pl., New York. Pamph., 6 x 9 ins.; pp. 12.

This circular contains chiefly a series of half tone cuts showing a variety of launches and boats for pleasure and other purposes, of sizes from 16 to 60 ft. length, driven by gasoline engines. One of the boats illustrated is a stern-wheeler, 44 x 10 ft., equipped with an 8-HP. engine, suitable for excursion parties. It is said to make a speed of 8 miles per hour.

VENTILATING FANS.—B. F. Perkins & Son, Holyoke, Mass. Pamph.; 6½ × 3½ ins.; pp. 36.

Illustrates and describes ventilating and exhaust fans of the disk type. It is claimed for this make of fan that it will move as much air with the same power as any other fan of the same diameter. This modest claim is much more reasonable and likely to be believed than one we have seen lately in the catalogue of another fan of the same type, which says "they project 35% more air per given HP. than other fans."

SUPPLIES AND MACHINERY.—World Manufacturing Co.; Patterson, Gottfried & Hunter, Limited, Agents, 146, 150 Centre St., New York. Pamphlet, 8×[illegible] ins.; pp. [illegible]

This is a price-list for a great variety of supplies. Included are: Rubber belting, hose, packing and matting; linen and cotton fire-hose; rubber gaskets, diaphragms, valve balls, wagon and car springs; printers' and lithographers' press rolls and blankets. In another department are detachable link-beltings, adjustable hangers, split and solid safety collars and compression flange couplings.

ROAD MACHINES.—Climax Road Machine Co., Marathon, N. Y. Pamph. 9 × 6 ins.; pp. 44; illustrated.

This pamphlet gives very full descriptions of the several types of reversible and adjustible road machines manufactured by the above company, and also describes the same company's stone crushers in much detail. In its full description of all parts of the various machines this catalogue is a model which might be followed to advantage by many manufacturers who substitute a bewildering variety of illustrations for descriptive matter.

ENGINE STOPS.—The "Monarch" Engine Stop and Automatic Speed Limit. Monarch Mfg. Co., Waterbury, Conn. Albert A. Cary, General Manager, 39 Cortlandt St., New York. Pamph., 8½ × 5½ ins.; pp. 24.

The "Monarch" stop is an apparatus which has recently been put on the market for the stopping of steam engines or other motors from one or several points near or remote from the engine room, either by pressing a button or automatically when the speed exceeds a given limit. It is a safeguard against "running away" of the engine, and also provides a means of instantly stopping an engine in case of accident in any part of a factory.

GAS AND GASOLINE ENGINES.—Wolverine Motor Works, Grand Rapids, Mich. Paper, 9¼ × 5¾ ins.; pp. 59.

The Wolverine engine is a reversing engine, and is made with one, two or three cylinders for screw launches and yachts, the engines being of ¾ to 20 HP. For the smaller craft a reversible propeller screw is used. The illustrations show a stern-wheel boat 63 ft. long, operated by one of these engines. The stationary engines have vertical inverted cylinders, and an interesting machine shown is a 9 HP. plantation locomotive, built for a banana plantation in South America.

THE LARGEST ISOLATED LIGHTING PLANT IN THE WORLD.—Walker Co., Cleveland, O.—Circular; 7⅞ × 10¾ ins.

This is a brief description of how the contract for the lighting and electric power plant of the Astoria Hotel, in New York city, was awarded, and what machinery was installed. Four 250 K-W. and two 100 K-W. Walker generators are included, besides various auxiliary apparatus. An idea of the size of the plant can be formed from the fact that it furnishes current for 25,000 incandescent lamps, operates 21 elevators of different kinds and a considerable number of fans and ventilating motors.

CARBONIZED COATING.—Goheen Manufacturing Co., Canton, Ohio. Pamph., 9 × 6 ins.; pp. 23.

This pamphlet is devoted to the "Carbonized Coating" made by this firm for the preservation of iron and steel. This is a chemically combined painting material, which when properly applied in two coats is guaranteed by the makers to protect the metal for 10 to 15 years without renewal. The Goheen Co. wishes it clearly understood that this "Carbonized Coating" is not what is known as "carbon paint," as it differs entirely in composition and in results in use. This statement is made to correct a misleadng headline to the notice of the same pamphlet in our issue of March 3, 1898.

THE RELATIONS BETWEEN CITIES AND TOWNS AND STREET RAILWAY COMPANIES.—Report to the Massachusetts Legislature by a Special Committee Consisting of Chas. Francis Adams, of Lincoln; Wm. W. Crapo, of New Bedford, and Elihu B. Hayes, of Lynn. Paper; 6 × 9 ins.; pp. 57.

This committee appears to have been appointed in response to a feeling on the part of both the public and the street railway companies that their respective interests are not fully protected under existing state and municipal legislation and control. The committee has presented an interesting and valuable report on this subject, with recommendations, in the form of proposed acts, for new legislation. A discussion of this report and some points suggested by it will be found on our editorial pages.

ELECTRIC RAILWAY GENERATORS. — Walker Co., Cleveland, O. Pamph.; 7⅞ × 10⅞ ins.; pp. 20.

This is a recent Walker publication and is a revised and enlarged circular describing the special features of the railway generators manufactured by this company. On the first page the special characteristics necessary for a successful railway generator are mentioned, and the following pages are devoted to the consideration of these requirements. The latter part includes dimensions, sketches and tables of direct connected generators, from 100 to 1,600 K-W. output and various types of belted machines from 67 to 536 HP. Several full page half-tones, representing Walker generators as installed in railway power houses follow.

MACHINERY AND SUPPLIES.—Charles E. Billin & Co., Chicago, Ill. Paper, 5¾ × 8¼ ins.; pp. 64.

This is the first issue of a rather novel type of co-operative or combination catalogue, which is to be published monthly by this firm, which carries on business as engineers and purchasing and forwarding agents. It contains catalogues and price lists of a number of manufacturers of machinery and supplies, whose space varies from one to ten pages, the descriptions, cuts and prices being furnished by each firm. It is evident that with a periodical publication of this kind the firms represented can keep their prices and specialties revised up to date more readily and at less expense than with the ordinary large catalogues issued by individual firms at irregular intervals. Among the items in this first number are the Scott bolier feed of the Q. & C. Co.; the valves, cocks and pipes of the Crane Co.; the crushing rolls of the Denver Engineering Works Co.; and the water tube boilers of the Stirling Co., and the Oil City Boiler Works.

THE PURIFICATION OF SEWAGE BY BACTERIAL OXIDATION.—A study of the Natural Processes of Filth Removal and of the Means by which their Efficiency May Be Artificially Intensified. Including a Description of Works for Sewage Disposal at Willow Grove Park, Pa. By Geo. E. Waring, Jr., M. Inst. C. E., etc. The D. A. Tompkins Co., Contracting Engineers, Charlotte, N C. Waring, Chapman & Farquhar, Engineers of Design and Construction, 874 Broadway, New York city. Paper; 10½ × 8 ins.; pp. 28; illustrated.

This pamphlet describes the system of sewage purification placed on a commercial basis by Col. Waring, in which screening, filtration and forced aeration is employed. The above-named firm of contractors has been licensed to build plants under this system, after surveys and plans by Waring, Chapman & Farquhar. A number of half-tones show the plant built at Willow Grove Park, Philadelphia.

ELECTRICAL MATERIALS.—Elmer P. Morris, Manufacturers' Agent, 15 Cortlandt St., New York city. Pamph.; 6 × 9 ins.; pp. 108; illustrated.

This catalogue and price list is devoted to railway materials of all sorts. In it will be found the latest and most approved forms of cap and cone insulators, wire connectors, splicing sleeves, turnbuckles, strain insulators, pins, bolts, safety hooks, trolley wire ears, crossovers; also poles and pole fittings, such as pins, cross arms, pole tops, feeder arms. Among the special apparatus for cars and motors are head-lights, bearings, trolley forks, gears, pinions, brush holders, etc. A considerable portion is given up to the consideration of tubular poles for electric lamp support and railway work, insulators and pole fittings. The latter portion of the catalogue includes lists and illustrations of spikes, bolts, car stoves, fan motors, electrical instruments, etc.

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CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work. Place.	See Eng News.
Apr. 7	Sewer system, Columbia City, Ind.	Mar. 17
	Advertised, Eng. News, Mar. 17 and 24.	
Apr. 7	Sewer bonds ($31,437), Norwood, O.	Mar. 17
Apr. 7	Granite paving, etc., Cincinnati, O.	Mar. 17
Apr. 7	Bridge (150-ft. span), Kalama, Wash.	Feb. 17
Apr. 7	Sewers, grading, etc., St. Joseph, Mo.	Mar. 24
Apr. 7	Sidewalks, Jersey City, N. J.	Mar. 31
Apr. 7	Park work, New York, N. Y.	Mar. 31
Apr. 7	Screenings (1,030 cu. yds.), New York, N.Y.	Apr. 7
Apr. 7	Granite paving, etc., Newark, N. J.	Apr. 7
Apr. 7	State highway (1,400 ft.), Revere, Mass.	Apr. 7
Apr. 7	Telegraph line, Fort Myer, Va.	Apr. 7
Apr. 8	Water pipe, castings, etc., Schenectady, N.Y.	Apr. 7
Apr. 8	Valves, Boston, Mass.	Apr. 7
Apr. 8	Bridges, Iowa City, Ia.	Mar. 31
Apr. 8	Crib bulkhead, New York, N. Y.	Mar. 31
Apr. 8	Dredging, New York, N. Y.	Mar. 31
Apr. 8	Pipe sewer, Troy, N. Y.	Mar. 31
Apr. 8	Viaduct, Denver, Colo.	Mar. 24
Apr. 9	School building, Olivia, Minn.	Mar. 31
Apr. 9	Heating apparatus, St. Louis, Mo.	Mar. 31
Apr. 9	Steel truss bridge, Mansfield, Ill.	Mar. 24
Apr. 9	Ledge excavation, Rockland Harbor, Me.	Mar. 10
	Advertised, Eng. News, Mar. 10 to 31.	
Apr. 9	Dredging, Rockland Harbor, Me.	Mar. 10
	Advertised, Eng. News, Mar. 10 to 31.	
Apr. 9	Artesian well, Fort Washington, Md.	Mar. 17
	Advertised, Eng. News, Mar. 17 to Apr. 7.	
Apr. 9	Paving brick, Wheeling, W. Va.	Apr. 7
Apr. 9	Sewer pipe, etc., Wheeling, W. Va.	Apr. 7
Apr. 9	Retaining walls (2), Rockville, Conn.	Apr. 7
Apr. 10	Bridge abutments, etc., Poughkeepsie, N.Y.	Apr. 7
Apr. 10	Removing garbage, Chicopee, Mass.	Mar. 31
Apr. 11	Ferrules, etc., Chicago, Ill.	Mar. 31
Apr. 11	Building repairs, Pittsburg, Pa.	Mar. 31
Apr. 11	Building work, Chicago, Ill.	Mar. 31
Apr. 11	Concrete blocks, Duluth, Minn.	Mar. 1
	Advertised, Eng. News, Mar. 17 to Apr. 7.	
Apr. 11	Dredging, Perriwig Bar, Del.	Mar. 17
	Advertised, Eng. News, Mar. 17 to 31.	
Apr. 11	Electric lighting, Canton, O.	Mar. 17
Apr. 11	Highway bridges (2), Chatham, Va.	Mar. 3
Apr. 11	Lighting bonds, Reno, Nev.	Mar. 24
Apr. 11	Steel bridge, Lecompton, Kan.	Mar. 24

Apr. 11. Water bonds ($130,000), Reno, Nev. .....Mar. 24
Apr. 11. Center bridge pier, Indianapolis, Ind.......Apr. 7
Apr. 11. Steel bridge, Wharton, Tex. ....Apr. 7
Apr. 11. Macadamizing, etc., Cincinnati, O. ....Apr. 7
Apr. 11. Earth excavation, etc., Jersey City, N. J...Apr. 7
Apr. 11. Steam heating, Philadelphia, Pa...........Apr. 7
Apr. 11. Church building, Picton, Ont. ....Apr. 7
Apr. 11. Boiler, Allegheny, Pa. ....Apr. 7
Apr. 11. Electric light cable, Chicago, Ill. ....Apr. 7
Apr. 11. Engineers' supplies, etc., New York.......Apr. 7
Apr. 12. Pipe sewers, Rochester, N. Y. ....Apr. 7
Apr. 12. Extending county roads, Bloomington, Ind...Apr. 7
Apr. 12. Brick or asphalt (20,000 sq.yds.), Macon, Ga. Apr. 7
Apr. 12. Paving, Rochester, N. Y. ....Apr. 7
Apr. 12. Sewer, Allegheny, Pa. ....Apr. 7
Apr. 12. Arc light dynamo, Allegheny, Pa. ....Apr. 7
Apr. 12. Bridge, Moscow, Idaho. ....Apr. 7
Apr. 12. Building repairs, New York, N. Y. ......Apr. 7
Apr. 12. Smokestack, etc. (water-works), Philadelphia. Apr. 7
Apr. 12. Court house and vault, Giddings, Tex. ...Mar. 24
Apr. 12. Steel gas tanks, Washington, D. C. ......Mar. 24
Apr. 12. Grading, etc., Albany, N. Y. ....Mar. 24
Advertised, Eng. News, Mar. 24 to Apr. 9.
Apr. 12. Removing wreck, Davis' Strait, Me. ......Mar. 17
Advertised, Eng. News, Mar. 17 to 31.
Apr. 12. Naval supplies, Portsmouth, N. H.........Mar. 31
Apr. 12. Maintaining buoys, Tompkinsville, N. Y...Mar. 31
Apr. 12. Macadamizing, Trenton, N. J. ....Mar. 31
Apr. 12. Combination bridge, Trenton, N. J. ....Mar. 31
Apr. 13. Sewers, Cleveland, O. ....Mar. 17
Apr. 13. Paving, Cleveland, O. ....Mar. 17
Apr. 13. Paving, etc., Ann Arbor, Mich. ....Mar. 24
Advertised, Eng. News, Mar. 17 and 24.
Apr. 13. Brick sewers, Chicago, Ill................Mar. 24
Apr. 13. Electric railway franchise, Los Angeles, Cal. Mar. 24
Apr. 13. Paving (8 streets), Chicago, Ill. ....Apr. 7
Apr. 13. Highway, Waltham, Mass. ....Apr. 7
Apr. 13. Laying water mains, Chicago, Ill. ....Apr. 7
Apr. 13. Sewers, Chicago, Ill. ....Apr. 7
Apr. 13. Paving, Toronto, Ont. ....Apr. 7
Apr. 13. Brick paving, etc., Cincinnati, O. ....Apr. 7
Apr. 13. Brick sewer, Sandusky, O..................Apr. 7
Apr. 13. Electric light plant, Columbus, O. ....Apr. 7
Apr. 14. Sewers, Cleveland, O. ....Apr. 7
Apr. 14. School building, Milwaukee, Wis. ....Apr. 7
Apr. 14. Improving road, New York, N. Y. ....Apr. 7
Apr. 14. Sewers, Anaconda, Mont. ....Apr. 7
Apr. 14. Pipe sewer, etc., New York ....Apr. 7
Apr. 14. Grading, draining, etc., Cleveland, O. ......Apr. 7
Apr. 14. Asphalt tiles (21,250), New York, N. Y....Apr. 7
Apr. 14. Paving, Buffalo, N. Y. ....Apr. 7
Apr. 14. Electric elevators (7), Washington, D. C...Apr. 7
Apr. 14. Wheelwrights' materials, etc., New York..Apr. 7
Apr. 14. Grading, etc., Wapakoneta, O. ....Mar. 24
Apr. 14. Brick paving, etc., Flint, Mich. ....Mar. 24
Apr. 14. Jail building, Glencoe, Minn. ....Mar. 24
Apr. 14. Fenders and pile sinkers, St. Louis, Mo....Mar. 17
Advertised, Eng. News, Mar. 17 to Apr. 7.
Apr. 14. City hall plans, St. Thomas, Ont...........Mar. 17
Apr. 14. Telephone system, Willow, Cal. ....Mar. 31
Apr. 14. Water wheels, generators, etc., Seattle, Wash. Mar. 31
Apr. 14. Electric light plant, Harriman, Tenn. ....Mar. 31
Apr. 14. Road work, Pittsburg, Pa. ....Mar. 31
Apr. 15. Electric light plant, New Carlisle, Ind. ..Mar. 31
Apr. 15. Sewer bonds ($150,000), Memphis, Tenn....Mar. 17
Apr. 15. Sidewalks, Mattoon, Ill. ....Mar. 17
Apr. 15. Lock and approaches, New Orleans, La.....Mar. 10
Advertised, Eng. News, Feb. 17 to Mar. 10.
Apr. 15. Grading, excavating, etc., Athens, O. ....Mar. 24
Apr. 15. Gas and electric fixtures, Milwaukee, Wis...Mar. 24
Apr. 15. Steamboat, Portland, Me. ....Mar. 24
Advertised, Eng. News, Mar. 24 to Apr. 21.
Apr. 15. Electric light plant, Lewistown, Mont. ....Mar. 24
Apr. 15. Granolithic walk, Pittsburg, Pa. ....Apr. 7
Apr. 15. U. S. Building, Portland, Ore. ....Apr. 7
Apr. 15. Electric light plant, Hagerstown, Md......Apr. 7
Apr. 15. Improving road, Richmond, Ind. ....Apr. 7
Apr. 15. Macadamizing, etc., Cincinnati, O. ......Apr. 7
Apr. 15. Grading bridge approaches, Buffalo, N. Y. ..Apr. 7
Apr. 16. Steel bridge, Waseca, Minn. ....Apr. 7
Apr. 16. Water bonds ($5,000), Tripp, S. Dak. ....Mar. 24
Apr. 16. School building, Logan, Utah. ....Mar. 31
Apr. 16. Sewer bonds ($50,000), Spartanburg, S. C..Mar. 31
Apr. 18. School building, Atwater, Minn. ....Mar. 24
Apr. 18. School building, Vinton, Ia. ....Mar. 24
Apr. 18. Steel bridge (100 ft.), Rosecrans, Ill. ......Mar. 24
Apr. 18. Electric railway franchise, Riverside, Cal...Mar. 24
Apr. 18. Brick sewer, Toledo, O. ....Mar. 17
Apr. 18. Buoy service, Detroit, Mich. ....Mar. 31
Apr. 18. Water-works, Hellertown, Pa..............Mar. 31
Advertised, Eng. News, Mar. 31 and Apr. 7.
Apr. 18. Water-works, bonds, etc., Tripp, S. Dak....Mar. 31
Apr. 18. Hotel building, Alexandria, La. ....Apr. 7
Apr. 18. Grading, Clay Center, Neb.................Apr. 7
Apr. 18. Office building, Columbus, O. ....Apr. 7
Apr. 18. State capitol, Harrisburg, Pa. ....Apr. 7
Apr. 18. Settling basins, filters, etc., Rock Island, Il. .Apr. 7
Advertised, Eng. News, Apr. 7 and 14.
Apr. 19. School buildings, Bayonne, N. J. ....Apr. 7
Apr. 19. Water-works, Calhoun, Ga. ....Apr. 7
Apr. 19. Town hall, Castlewood, S. Dak. ....Mar. 31
Apr. 19. Flag, curb, etc., Passaic, N. J.............Mar. 31
Apr. 19. Court house bonds, Anaconda, Mont. ....Mar. 24
Apr. 19. Water-works, Mineral Point, Wis. ....Mar. 24
Advertised, Engineering News, Mar. 24.
Apr. 20. Water-works, Kingfield, Me. ....Mar. 24
Apr. 20. Water-works, Auburn, Ind. ....Mar. 10
Apr. 20. Brick building, Clemson College, S. C.....Mar. 31
Apr. 20. Railway (27¾ miles), Scotland...........Mar. 31
Apr. 20. Dredging, Buffalo, N. Y. ....Apr. 7
Apr. 20. Fire engine, hose, wagons, etc., New York. .Apr. 7
Apr. 20. Alarm box fixtures, New York, N. Y.....Apr. 7
Apr. 20. Water-works, Edwardsville, Ill. ....Apr. 7
Apr. 20. Water-works, Rat Portage, Ont............Apr. 7
Advertised, Engineering News, April 7.
Apr. 21. Channel work, Detroit, Mich...............Apr. 7
Advertised, Eng. News, Apr. 7 and 14.
Apr. 21. Stand-pipe, Jeffersonville, Ind. ....Mar. 31
Advertised, Eng. News, Mar. 31 to Apr. 14.
Apr. 21. Paving (15,000 sq.yds.), Waukesha, Wis....Mar. 17
Advertised, Eng. News, Mar. 17 to Apr. 14.
Apr. 22. Canal work, Boston, Mass. ....Mar. 31
Advertised, Eng. News, Mar. 31 and Apr. 7.
Apr. 22. Main sewer, Cleveland, O. ....Mar. 31
Apr. 25. Church building, Montreal, Que. ....Apr. 7
Apr. 26. Fire engine, Cleveland, O. ....Apr. 7
Apr. 26. Naval supplies, Mare Island, Cal. ....Mar. 31
Apr. 27. Water-works, Pittsford, N. Y.............Mar. 31
Advertised, Eng. News, Mar. 31 to Apr. 14.
Apr. 27. Brick and asphalt paving, Sandusky, O.....Mar. 31
Apr. 27. U. S. building work, Savannah, Ga........Apr. 7
Apr. 27. Railway (14½ miles), Ireland ....Apr. 7
Apr. 28. Oil or vapor lighting, Cleveland, O.........Apr. 7
Apr. 28. Grading, etc., Cleveland, O................Apr. 7
Apr. 28. Main sewer, etc., Cleveland, O. ....Apr. 7
Apr. 28. Water tunnel, intake, etc., Cincinnati, O. ..Mar. 31
Advertised, Eng. News, Mar. 31 to Apr. 21.
Apr. 29. Mooring stones, Portland, Me. ....Apr. 7
Apr. 29. Stone, Cleveland, O. ....Apr. 7
Apr. 29. Cement sidewalks, Irvington, Ind. ....Apr. 7
Apr. 30. Plans for water-works, Cricklade, Eng. ....Apr. 7
Apr. 30. Repairing pavement, Washington, D. C...Apr. 7
Advertised, Engineering News, April 7.
Apr. 30. Repairing dredge, Charleston, S. C.........Apr. 7
Advertised, Eng. News, Apr. 7 to 21.
Apr. 30. Town hall, Singapore, S. S. ....Jan. 13
Apr. 30. Surfacing road (6 miles), Milton, Mass. ..Mar. 31
Advertised, Eng. News, Mar. 31 to Apr. 14.
May 1. Plans for sewage disposal, Belper, Eng.....Dec. 16
May 1. Cathedral, Memphis, Tenn. ....Mar. 17
May 1. Electric lighting, Sheboygan Falls, Wis...Mar. 24
May 2. Asphalt or brick paving, Geneva, N. Y.....Apr. 7
Advertised, Eng. New, Apr. 7 to 28.
May 3. Jail, Dalton, Ga. ....Mar. 17
May 3. Steel cells (4), Visalia, Cal. ....Mar. 3
May 5. Brick paving (47,000 sq. yds.), Tampa, Fla..Apr. 7
Advertised, Eng. New, Apr. 7 to 28.
May 6. Dredging, Connecticut River, Conn. ......Apr. 7
Advertised, Eng. New, Apr. 7 to 28.
May 9. Sidewalk and curbing, (1 m.), Lafayette, Ind. Apr. 7
May 10. Levee (30 miles), Memphis, Tenn. ....Mar. 31
May 11. County bridge, Gonzales, Tex. ....Mar. 3
May 18. Extending water-works, etc., Prescott, Ariz. Mar. 31
May 18. Bridges (3), Chicago, Ill. ....Mar. 31
Advertised, Eng. News, Mar. 31 to Apr. 21.
May 18. Bridge, Chicago, Ill. ....Apr. 7
Advertised, Eng. News, Apr. 7 and 14.
May 25. Water franchise, Ridgewood, N. J..........Mar. 24
Advertised, Eng. News, Mar. 24 to Apr. 28.
May 31. Electric light plant, Malvern, Ark..........Apr. 7
June 1. Cofferdam, masonry, etc., Chicago, Ill. ....Apr. 7
June 1. Electric railway, Zurich, Switzerland .....Mar. 10
June 24. Electric plant, Hawthorne, Australia....Mar. 31
July 1. Water power, Madras, India ....Oct. 28
July 1. Plans for sewer system, Formby, Eng.....Apr. 7
July 24. Buildings, Belem, Brazil ....Mar. 24
Sept. 12. Hospital plans, San Francisco, Cal........Mar. 24
No date. Dam and culvert, Pikesville, Md. ....Mar. 24
" . Water supply, Rock Hill, S. C. ....Mar. 24
Advertised, Eng. News, Mar. 17 to Apr. 14.
No date. Stone dam, Spray, N. C. ....Apr. 7
" . Brick sidewalks (14 m.), Topeka, Kan.....Apr. 7

RAILWAYS.

ARKANSAS.—Reports state that the citizens of Bentonville, Ark., have raised $25,000 towards the construction of a railway from Gravett to Rogers, Ark., a distance of 23 miles.

BREWTON & PINEORA.—John M. Egan, Vice-Pres. Georgia Central Ry., Savannah, Ga., is quoted as saying that this new line will be completed between Brewton and Stillmore, Ga., 35 miles, by May 1. This company is the reorganization of the Atlantic Short Line, projected to run between Macon and Savannah, Ga.

BRITISH COLUMBIA, SEATTLE & PACIFIC COAST.—This company has applied to the council of Seattle, Wash., for a franchise of way 30 ft. wide over Railroad Ave. It is proposed to construct a standard gage line from Portland, Ore., to Seattle, and thence northward to the Canadian boundary. The approximate length of the route is 305 miles, and the total cost about $5,000,000. Among those interested are Henry J. Braker and Austin B. Fletcher, of New York.

BUFFALO, ROCHESTER & PITTSBURG.—Wm. E. Hoyt, Ch. Engr., Rochester, N. Y., informs us that all the right of way has been obtained for the proposed extension of this railway from Punxsutawney to Newcastle, via Butler, Pa., a distance of 98 miles; and that all the capital for construction has been subscribed. Only twelve miles have yet been let, including a tunnel 2,300 ft. in length, as reported in our issue of March 24. The Pennsylvania Construction Co., of Curwensville, Pa., will do the work.

CALIFORNIA AND NORTHWESTERN.—Press reports from San Francisco, Cal., state that this company has been formed to build an extension to the line known as the Donahue Road, into the redwood forests of Mendicino and Humboldt counties. Among those interested are Geo. F. Prescott, G. A. Pope and J. H. Isham.

CANE BELT.—Reports state that about 1½ miles of this new railway have already been completed and that 7½ miles more will be built shortly. The company was incorporated in Texas March 8, with a capital stock of $15,000, to construct a railway from Columbus to Bonus, Tex., a distance of 15 miles. Pres., William Dunoven; Vice-Pres., W. T. Eldridge, Eagle Rock, Tex.

CHICAGO HEIGHTS TERMINAL TRANSFER.—This railway company was incorporated in Illinois, March 30, with a capital stock of $5,000, to build and operate a line from a point in Bloom, Cook county, to the various railways and factories of said town. The incorporators are Chas. H. Walker, Francis Lackmer, Lee Fox, Rudolph Brand and M. H. Kilgallen, all of Chicago, Ill.

CHICAGO, LAKE SHORE & EASTERN.—Reports state that this company, formerly known as the Calumet & Blue Island, is about to move its yards from South Chicago to Clark, Ind. At present the road's switch yards are on the Illinois Steel Co.'s tracks. The cars will continue to run into the mills, but all switching will be done at Clark. It is said that the new yards will be much more extensive than those now in use. C. E. Dearborn, Ch. Engr., The Rookery, Chicago, Ill.

COBOURG, NORTHUMBERLAND & PACIFIC.—Reports from Cobourg, Ont., state that actual construction of this railway will commence early in April. Mr. Wickstead, of Cobourg, is said to be engaged in locating a new line between Summit and Burnley, 7 miles.

ENGLAND.—It is proposed to build a light railway from Scunthorpe to Gainsborough, Eng., 15 miles, making connections with the Great Central Ry. at Frodingham and at Blyton. H. Luttrell Godden, Engr. of Grimsby Light Ry., is said to be making necessary surveys; estimated cost, £3,500 a mile.

FITZGERALD & ATLANTIC.—This company has been organized in Georgia, with a capital stock of $40,000, to build a railway from Fitzgerald to Douglas, Ga., about 40 miles, to a connection with the Waycross Air Line. Among the incorporators are Thomas Wilson and G. W. Smith, of Fitzgerald, Ga.

GULF, BEAUMONT & GREAT NORTHERN.—The organization of this company was completed in Houston, Tex., on March 25, and the capital stock is placed at $600,000. The company will build a railway from Sabine Pass to Paris, and from Jasper to Fort Worth., Tex., and it will be a part of the Gulf, Beaumont & Kansas R. R. system. Surveys have been started. Pres., John H. Kirby, of Houston; Secy., W. W. Helbig, of Beaumont. Tex.

HAGERSTOWN & STATE LINE.—This company has been incorporated in Maryland to build a branch of the Western Maryland R. R. between Hagerstown, Md., and Altenwald, Pa. The incorporators are J. M. Hood, Pres. Western Maryland R. R., Baltimore, Md.; H. C. Koehler, H. Kyd Douglas and William Kealhofer, Hagerstown, Md. The Washington & Franklin R. R. Co. was incorporated in Pennsylvania Feb. 2, with a capital stock of $200,000, by J. M. Hood and others, to build between the same points.

IRELAND.—Bids are asked by the directors of the Donegal Ry. Co, until April 27, for the construction of an extension to their line from Strabane to Londonderry, about 14½ miles. Secy., W. R. Lawson, Stranorlar; Engr., James Barton, Exchange Bldg., Dundalk, Ireland.

JONESBORO, LAKE CITY & EASTERN.—A. J. Kerfoot, Gen. Mgr., Jonesboro, Ark., informs us that 12 miles of this line have been completed between Nettleton and Lake City. John P. Hely, C. E., is now at work running a line for an extension 15 miles east of Lake City. A bridge is also in process of construction over the St. Francis River. Pres., J. E. Jones, of Jonesboro.

KETTLE VALLEY.—This company has been incorporated in Washington, with a capital stock of $1,000,000, to construct a branch of the Spokane Falls & Northern Ry., between Marcus and Northport and thence westerly into and through the Colville reservation. The early construction of the line depends largely upon the obtaining of a charter from the Canadian government for building in the Boundary Creek country. Among the incorporators are Austin Corbin and E. J. Roberts.

MASSACHUSETTS.—The supreme court of this state has ordered that the two Main St. grade crossings, in Blackstone, Mass., be abolished. The "Millville" crossing will require the erection of two highway bridges of 55 ft. span, 1,200 cu. yds. of bridge masonry and 60,000 cu. yds excavation, on the New York, New Haven & Hartford R. R.; estimated cost, $45,000. E. P. Dawley, Div. Engr., Providence, R. I. The "Blackstone" crossing on the New England R. R. calls for a railway bridge with 55 ft. span with abutments and about 15,000 cu. yds. excavation; estimated cost, $16,000. L. B. Bidwell, Ch. Engr., Boston, Mass.

MEXICAN NATIONAL.—Reports state that this railway will change its gage this year from narrow to the standard. It is also said that the company will build a standard gage branch from Salvatierra to the port of Manzanillo, on the Pacific Coast. The railroad company and the Mexican National Construction Co. are to be consolidated. H. H. Filley, Ch. Engr., Mexico, Mex., and Kansas City, Mo.

MEXICO.—Press reports state that Ignacio Borde, of the City of Mexico, Mexico, has been granted a concession by the department of communication for a standard gage railway from Guadalajara to Colima, in the State of Jalisco. At the present a branch of the Mexican Central extends west a short distance beyond Guadalajara to the town of Ameca, and then abruptly ends, and on the Pacific a narrow gage line runs the short distnce from Manzanillo to Colima. The country intermediate from Colima to Guadalajara possesses no means of railroad communication, and it is proposed to fill in the gap. Owing to the nature of the country about 175 miles of road would have to be built, although the distance in a direct line is but 120 miles.

NORTHWEST.—Bids are being received, according to reports, for grading eight miles of standard gage railroad from Huntington, Ore., to the Bayhorse Rapids.

PACIFIC & ARCTIC.—The Pacific & Arctic Ry. & Navigation Co., of New York, was incorporated in West Virginia, March 27, with a capital stock of $1,000,000. It is proposed to build and operate a steam railway from the Lynn Canal to Summit Lake in Alaska. The incorporators are D. N. Rowan and G. W. Rowan, Irvington, N. Y.; T. W. Moore and Webster Gillette, New York; Edwin Midgley, London, England.

RICHMOND, PETERSBURG & CAROLINA.—James S. Negley, Vice-Pres. and Gen. Mgr., 136 Liberty St., New York, informs us that W. P. Chapman, of Petersburg, Va., has been awarded the contract for constructing the entire line between Petersburg, Va., and Ridgeway, N. C. It is said that sub-contracts are being let for grading and bridge work. There will be about 40 miles of new work and 40 miles of old work, about one-half of the road having been constructed 14 years ago. Further information may be found in our issues of February 17 and 24.

RIO GRANDE WESTERN.—Reports state that surveys are now being made for a new right of way near Springfield, Utah, which would require four or five miles of new roadbed. E. J. Yard, Ch. Engr., Salt Lake City, Utah.

ROSENBURG, DAWSON MOUND & GULF.—Geo. B. Lang, Secy., Rosenburg, Tex., informs us that this proposed railway has been located and the right of way secured, and that grade stakes are now being set. Contracts will probably be let May 1, as capital has been acquired for grading and necessary ties. The route is from Rosenburg south to Damon, a distance of 20 miles through an agricultural country to cedar and cypress forests on San Bernardino River. Bids are also desired on new and relaid 50 to 56 lb. steel rails, and also on rolling stock. Pres., S. C. Brasher, 1812 Austin Ave., Houston, Tex.; Ch. Engr., W. R. Stockwell, Alvin, Tex.

SHELBYVILLE & BLOOMFIELD.—Samuel Spencer, Pres., 80 Broadway, New York, informs us that this company, whose incorporation in Kentucky was reported in our issue of last week, was formerly known as the Cumberland & Ohio R. R., Northern Division, and was purchased by Mr. Spencer on Dec. 13, 1897. Supt. G. R. Loyall, Louisville, Ky.

SOUTH JERSEY.—This railway was sold at public auc- March 29, at Windsor Junction, N. J., to Robert P. Linderman, the only bidder, for $300,000. It is said that Mr. Linderman, who is president of the Bethlehem Iron Co., Bethlehem, Pa., represented the creditors and bondholders, and that the road will be reorganized as outlined in the plan of the reorganization committee. The South Jersey is a single track line, running between Cape May and Winslow Junction, connecting the latter point with the Philadelphia & Reading Co.'s Atlantic City branch. It has branches to Ocean City and Sea Isle, N. J., and has been in existence about ten years.

STANTON & AUGUSTA.—Reports state that work will probably begin before June 1, on the proposed line from Stanton, Va., to a connection with the Norfolk & Western Ry. Pres., E. C. Vincent, Stanton.

TEXAS & PACIFIC.—The Grisby Construction Co., of Dallas, Tex., is reported as having received a contract for grading an extension of this line from Waskom, Tex., into Louisiana, a distance of 13 miles. B. S. Wathen, Ch. Engr., Dallas, Tex.

THE DALLES, DES CHUTES & DUFUR.—We are informed that preliminary surveys have been made for this proposed railway between The Dalles and Biggs, Ore., but that no capital has yet been secured, nor definite arrangements decided upon. W. H. Moore is one of the incorporators.

VIRGINIA.—C. F. Day, of Smithfield, Va., writes us that only the charter has been received for the proposed line of railway from Smithfield to Portsmouth, Va. The project has not yet been further developed, but it is hoped to build.

VIRGINIA CENTRAL.—J. Chester Wilson, Pres., 706 Betz Bldg., Philadelphia, Pa., writes us that the preliminary surveys only have been obtained for this proposed railway, from Hallsboro to James River, via Chester, Va., 60 miles. The right of way is being secured, and negotiations for the necessary capital for construction are now being carried on. Contracts will be let as soon as right of way and final surveys have been completed. H. K. Myers, Ch. Engr., 3653 North 15th St., Philadelphia.

WISCONSIN.—Press reports state that a 60-mile logging railway from the mouth of the Escanaba River, in Wisconsin, to Republic, Mich., will be built at a cost of $500,000, by Isaac Stephenson, Marinette, Wis.; Daniel Wells, Jr., Milwaukee, Wis.; J. W. Wells, Menominee, Wis., and others.

WYOMING & DAKOTA.—Press reports state that financial arrangements have been made to complete this proposed line, which was partially graded several years ago, from Belle Fouche, S. Dak., to Barrett, Wyo., 18 miles, and also that work will begin this month by the Crouch Construction Co., First National Bank Bldg., Chicago, Ill.

STREET AND ELECTRIC RAILWAYS.

MIDDLETOWN, VT.—It is reported that there is a prospect for an electric railway being built from Middletown through Poultney and Hamton to Fair Haven, Vt., with possible extensions to Hydeville, Castleton and West Rutland.

WALTHAM, MASS.—F. G. L. Henderson, Supt. Newton St. Ry. Co., West Newton, Mass., informs us that the franchise granted in Waltham has not yet been accepted by the company, and that it may have to be modified in order to make the terms less severe.

DANIELSON, CONN.—Reports state that the People's Tramway Co., of Danielson, has executed a contract for the transfer of its charter to Sanderson & Porter, of New York, and Robert L. Warner, of Boston. It is expected that a single track line will be completed between Danielson and Putnam by August 1. Further extensions to Brooklyn and Moosup are contemplated.

WESTPORT, CONN.—The Bridgeport Traction Co. is said to have awarded the contract for constructing the extension of its line to Westport. Work is to commence at once and to be completed by June 15. Pres., A. Radel, Bridgeport.

BUFFALO, N. Y.—Twenty bids were received by the Buffalo, Hamburg & Aurora Ry. Co., March 30, for the construction of 19 1-6 miles of electric railway, etc., as advertised in Engineering News of March 17. No contracts have yet been awarded. The company has decided to increase its capital stock from $200,000 to $400,000 in order to provide capital necessary for construction purposes. U. L. Upson, Gen. Mgr., 1095 Ellicott Square, Buffalo.

TONAWANDA, N. Y.—Geo. W. Aldridge, Supt. Pub. Wks., Albany, N. Y., is reported to have granted a permit to the Buffalo, Tonawanda & Niagara Falls Electric Ry. Co. to build along the River Road. The granting of a franchise by this village will be discussed at the next meeting of the village trustees.

FRANKFORT, N. Y.—C. W. Wetmore, Highway Comr., has signed the franchise granting the Frankfort & Utica Ry. Co. the right to construct a 9-mile electric railway to Utica, and it is said that work will commence in a few days and be completed by Dec. 1. Beckwith & Quackenbush, of Herkimer, N. Y., are to build the line.

WEST ONEONTA, N. Y.—Albert D. Getman, Oneonta, N. Y., informs us that the surveys and maps have been completed for the proposed West Oneonta & Laurens electric railway, 5½ miles, and the right of way obtained. Capital for construction not yet secured. Pres., Frank Gould; Ch. Engr., C. Covert, both of Oneonta.

FREEHOLD, N. J.—The freeholders of Monmouth county granted a franchise to the Monmouth Traction Co., April 1, for the use of the county road to Matawan for a single track trolley line. Additional franchises will have to be obtained before construction can commence. This company, of which Col. Edward Morrell, of Torresdale, Pa., is reported as chief promotor, contemplates the building of an electric railway across New Jersey to Keyport, connections being made between New York and Philadelphia at the respective terminals by boat. The incorporation of the company is noted in our issue of December 23.

MONTCLAIR, N. J.—The North Jersey St. Ry. Co. and the town council have at last agreed to terms upon which an application of the company to build in Montclair will be considered. Information regarding proposed route, etc., may be found in our issue of Jan. 20. E. W. Sanford, Chn. Franchise Com.; J. K. Corbiere, Pres. North Jersey St. Ry. Co., 28 Nassau St., New York.

ALLENTOWN, PA.—The franchises of the Allentown & Reading Electric Ry. for the construction of a trolley line from this city to Kutztown have been disposed of by Colonel S. D. Lehr to another company, which will soon apply for a charter under the name of the Allentown & Kutztown Traction Co. The control of the old company's rights will be secured by a lease for a term of years. Some rights of way still remain to be secured, and if the projectors are successful the construction of the road will be begun in the near future.

PHILADELPHIA, PA.—We are informed that the League Island extension of the Union Traction Co.'s line, for which Latta & Terry, 1,001 Chestnut St., are the contractors, is about completed. The greater part of the two miles of track was laid in less than two weeks, so that the people visiting the navy yards could be accommodated. J. B. Parsons, Gen. Mgr., 8th and Dauphin Sts.

SHENANDOAH, PA.—Hamilton Godfrey, Pres. Shenandoah St. Ry. Co., 547½ Penn St., Reading, Pa., writes us that the right of way has been secured and about one-half of the stock subscribed for this proposed electric railway between Shenandoah and Ringtown, 6½ miles; surveys are about half finished. Contracts will soon be let for full equipment of the road.

CUMBERLAND, MD.—The Smith Cumberland Electric Ry. Co. has been incorporated, with a capital stock of $500, to build a line in Allegheny county. The incorporators are: Peter Seaver, Thomas L. Coulehan, Ferdinand Williams, William E. Walsh and William T. Coulehan.

HAGERSTOWN, MD.—Christian W. Lynch, Pres. Hagerstown Ry. Co., informs us that bids will be received about April 15, for the construction of an electric light and power plant to cost $30,000, as described under Electric Light and Power.

NEWPORT NEWS, VA.—J. A. Massie, of Newport News, informs us that the Newport News & Old Point Ry. & Electric Co. is seeking franchises for its proposed line from Newport News to Old Point Comfort, via Hampton and Phoebus, 10 miles. Petitions were to be considered at this place in April 5, and at Hampton, on April 7. Pres., W. J. Payne, Richmond, Va.

KNOXVILLE, TENN.—Reports state that the Baltimore Trust & Guarantee Co., representing a body of capitalists, has purchased three street car lines and two electric light plants in this city. Frank S. Hamilton, of Baltimore, Md., and C. C. Howell, of Knoxville, are said to be interested.

CINCINNATI, O.—Jas. A. Collins, Secy. and Gen. Mgr. Cincinnati St. Ry. Co., informs us that the Falk Mfg. Co., of Milwaukee, Wis., is cast-welding about 7,000 joints along the company's line in different parts of the city. Pres., John Kilgour; Ch. Engr., F. R. Weizenecker, Apollo Bldg., Cincinnati.

TIFFIN, O.—A. I. Kaup, Ch. Engr. and Mgr. Tiffin, Fostoria & Eastern Electric Ry., Tiffin, informs us that the road for this proposed 7½-mile line is all graded, and that the company is ready to contract for everything necessary for the construction and operation of a first-class electric railway. The motive power acquired is 350 HP. Pres., D. E. Kimberly, Cleveland, O.

LA PORTE, IND.—W. W. Huffman, of Anderson, Ind., informs us that surveys will soon be made for the proposed electric railway between La Porte and Michigan City, Ind., 13 miles. Contracts will be let in May. The line will be built by Anderson capitalists, and J. W. Lovett will probably be the president of the company when organized.

BATTLE CREEK, MICH.—Press reports state that the Battle Creek, Gull Creek & Kalamazoo Electric Ry. Co has awarded the contract for buliding its proposed line to the New York Construction Co., care of C. F. Frothingham, 16 Broad St., New York.

ANN ARBOR, MICH.—It is reported that Patrick M. Kinsella, of Livonia, Mich., is organizing the Detroit, Pike's Peak & Ann Arbor Ry. Co., with a capital stock of $500,000, to build an electric line between the places named.

JOLIET, ILL.—The Joliet R. R. Co. was organized in Illinois, March 30, with a capital stock of $600,000, to construct and operate electric street railway lines in this city, and to sell light, heat and power for manufacturing purposes. The incorporators are: Clinton C. Rush, W. H. Heun and A. P. Hirshmann.

WAUPAUCA, WIS.—W. B. Baker, Secy. Waupauca Electric Light Association, informs us that the capital has been secured for the proposed 5-mile electric line to the Wisconsin Veterans' Home and Chain O' Lakes. The whole system will be operated by water power and it will be under the management of the reorganized company. Pres., Irving P. Lord.

BUFFALO, WYO.—Press reports state that a proposition to construct an electric line from this place to Clearmont station, on the Burlington & Missouri R. R., 32 miles distant, is being considered by an eastern rapid transit company located at Syracuse, N. Y. The road would be used primarily for freight traffic, and it is expected to cost about $4,000 a mile.

SHAWNEE, OKLA.—It is reported that a franchise for a street railway has recently been granted to C. N. Points.

PINE BLUFF, ARK.—Nat Covington, Peru, Ind., informs us that complete data are not yet prepared for the proposed electric railway, which will be built in this city under the franchise granted to Mr. Covington and W. W. Harrison, of Anderson, Ind., on March 15. Work must be commenced within four months and be completed within a year from this date. The railway will be about eight miles in length at first. An electric light franchise is also included.

SEOUL, COREA.—It is reported that H. Colbran, Denver, Colo., has received the contract for the construction and equipment of an electric trolley street railway for the Seoul Electric Co.

ELECTRIC LIGHT AND POWER.

BIDDEFORD, ME.—It is reported that the New York Light & Heat Co. of this city proposes to build a power house at its wharf. Supt., E. J. Sullivan.

VINALHAVEN, ME.—Geo. P. Ginn, Pres. Vinalhaven Electric Light & Power Co., just incorporated, writes us that the plant will have 1,000 16-c. p incandescent lights; estimated cost, $10,000.

FAIRFAX, VT.—A. S. Richardson, G. P. Twigg, W. B. Fonda, and others of St. Albans, were at Fairfax Falls last week, accompanied by Mr. Lang, of Lang & Goodhue, Engrs., Burlington, to investigate the feasibility of utilizing the water power at that place for a proposed electric plant. Many schemes for utilizing this extensive water power have been projected in the past, but the larger part of the power has never been utilized principally because it is located five or six miles from a railway connection. This will be overcome in great part by the putting in of a large electric plant, and the transmission of the power to other places. A. B. Beeman and I. E. Hunt, of Fairfax, have been identified with previous efforts to utilize this power.

CONCORD, MASS.—This place voted at the annual town meeting April 4 to construct a plant at a cost of about $35,000, and also a telephone fire alarm service. Chas. E. Brown, Town Clk.

WOBURN, MASS.—Plans have been completed for a new plant in this city, according to reports. Supt. Wallis may be addressed.

BUFFALO, N. Y.—Geo. J. Metzger, Arch., 19 West Huron St., will receive bids for the electrical apparatus for the new power station of the Buffalo General Electric Co. The power house will cost about $60,000, and the entire plant about $100,000.

CHARLOTTE, N. Y.—P. M. Schwartz, Clk., writes us that bids are asked for furnishing plans, maps and specifications for a plant to cost $10,000, and for water-works to cost $25,000.

GENEVA, N. Y.—Bids are asked until April 15 for lighting the streets and alleys of the city with 100 arc lights of 2,000 c. p. for periods of 3 years and 5 years, respectively, from May 1, for all night and every night in each year, and also for 325 lights for all night in each year. Also for 3 and 5 years, respectively, for 100 arc lights of 2,000 c. p. and 50 32-c. p. incandescent lights to be operated the same number of nights. Also for 300 Welsbach incandescent gas lamps burning all night and every night in each year, and also for 325 nights all night in each year; certified check, $5,000. W. E. Stubbs, Chn.

ORADELL, N. J.—Hugh J. Grant, 54 Wall St. New York, writes us that the purpose of the Delford Electric Light & Power Co. is to purchase power from the Hackensack Water Co., at New Milford, and to furnish electric lighting to Delford. Address John B. Lozier, Oradell.

ORLEANS, N. Y.—Geo. F. Lunn, Albion, N. Y., is reported as interested in the new company recently granted a franchise to erect a plant; estimated cost, $25,000. The Scranton Engineering Co., Scranton, Pa., is reported as interested.

MECHANICSVILLE, N. Y.—It is reported that the Hudson River Power Transmission Co., of Mechanicsville, has received permission to mortgage its plant for $500,000.

WATERTOWN, N. Y.—The council has directed the department of public works to secure estimates for a municipal plant, according to reports.

ALLEGHENY, PA.—Bide are asked until April 12 for furnishing a multi-circuit direct current arc dynamo of 125 light capacity. Robt. McAfee, Dir. Pub. Wks.

READING, PA.—Local papers state that the Metropolitan Electric Light Co. has let the contract for furnishing 50 miles of heavy copper wire to Roebling & Sons, Trenton, N. J., and the contract for furnishing 275 poles of 50 to 70 ft. long to Henry Fry, of Friedensburg, Pa. Contracts have also been let for furnishing two new switchboards, two 4,000 light machines, etc.; estimated cost, $60,000. The line will be extended to West Reading, Wyomissing and Sinking Spring.

HAGERSTOWN, MD.—Bids will be received until about April 15 for constructing a plant for the Hagerstown Ry. Co. We are informed that the plant will have 250 2,000 c. p. and 6,000 incandescent lights; estimated cost, $30,000. The following machinery will be contracted for: Two 450-HP. engines; a 225 K-W. 500 volt railway generator, belted; two 125 arc light machines, 200 arc lights of 2,000 c. p., and two 3,000 light alternators. The engines are to be tandem compound condensing. Pres., Christian W. Lynch; Secy. and Supt., W. C. Hepperele.

NEW WINDSOR, MD.—L. H. Dielman, Secy. and Treas., writes us that L. H. Dielman & Co. are investigating storage batteries for the extension of a small lighting plant.

BERKLEY, VA.—Local papers state that work on the proposed extension to the plant of the Berkley Electric Light & Power Co. will soon begin. The machinery is said to have been purchased.

NORFOLK, VA.—Local papers state that the City Gas Co., and the Electric Co. of Virginia have been consolidated. New apparatus will be put in. Capital stock, $500,000. Secy., J. W. Willcox, Norfolk.

HARPER'S FERRY, W. VA.—The Harper's Ferry Paper Co., it is reported, will develop 400 HP. at the water power owned by it on the Potomac River.

WRIGHTSVILLE, N. C.—It is reported that the Ocean View Co. proposes to build a plant at Wrightsville Beach.

COVINGTON, GA.—The Electric Supply & Construction Co., 20 Dayton St., Savannah, Ga., is reported to have been granted the contract for building a plant at $12,000; the plant to be completed in six months.

ORLANDO, FLA.—The Peninsular Electric Light & Power Co., recently incorporated, has been awarded the contract for lighting this place. Capital stock, $12,000. W. B. Tucker may be addressed.

COLUMBUS, MISS.—W. D. Humphries, Mayor, writes us that on account of an error another election will be held on the first of May to vote on the question of issuing $70,000 in bonds for a plant and water-works.

WESSON, MISS.—H. A. Earns writes us that this city has contracted with R. & J. Purser, Wesson, for a plant.

KNOXVILLE, TENN.—Press reports state as follows: Baltimore and New York parties have purchased the street railways and the electric light plants of Knoxville and will consolidate them. A new company will be formed with a capital stock of $750,000. The consolidated properties will have a first mortgage of $850,000, covering an issue of 5% bonds, to replace the bond on the individual properties. The Baltimore Trust & Guarantee Co. will be the trustees of the mortgage. Frank S. Hambleton, of Hambleton & Co., Bankers, Baltimore, Md., will be president of the new company, and C. C. Howell vice-president and general manager. The properties in the consolidation are the Knoxville St. Ry., Citizens' Ry., and the West End Ry., the Knoxville Electric Light & Power Co., and the Mutual Light & Power Co. The street railways are operated by electricity and are about 27 miles long. It is proposed to make a number of improvements to the system.

CLINTON, KY.—Bids are being considered for the proposed plant and water-works for the Clinton Water & Light Co., to cost about $11,000, according to reports. Des. Engrs., Sanders & Porter, Columbia Bldg., Louisville, Ky.

CLINTON, KY.—It is reported that the Clinton Water & Light Co. is about to consider propositions for constructing a plant and water-works to cost about $12,000. Secy., T. H. Williams.

LOUISVILLE, KY.—It is stated that a plant will be put in at the Custom House at a cost of about $20,000. Custodian, T. H. Baker.

HENDERSON, KY.—R. P. Farnsworth, Chn., writes us that the committee has been given permission to employ an engineer to prepare plans for a plant of 2,000 incandescent lights, etc.

CANTON, O.—The water-works trustees are considering the matter of putting in an electric light plant at the pumping station.

COLUMBUS, O.—Bids are asked until April 13 for furnishing the material and for constructing a municipal plant. Further information will be found in our issue of March 17. The bids received March 24 were rejected. H. M. Lyman, Supt. Lights; Jas. A. Fanning, Clk. Bd. Pub. Wks.

GIRARD, O.—The question of building a plant is reported as being considered.

MARYSVILLE, O.—An election will be held April 18 to vote on the question of issuing $10,000 in bonds for a plant, according to reports.

RICHMOND, O.—An election will be held April 18 to vote on the question of issuing $10,000 in bonds for building a plant.

GOSHEN, IND.—The Fort Wayne Electric Corporation, Fort Wayne, has been awarded the contract for furnishing the dynamo for the proposed plant at $3,700. City Clerk Leaming may be addressed.

MUNCIE, IND.—The committee has recommended the purchase of a new 50-HP. engine, a 50-HP. dynamo and the extension of the pole line; estimated cost, $2,160. H. C. Haymond, Chn. Com.; W. H. Wood, Cy. Engr.; Wm. Warner, Supt. Lights.

NEW ALBANY, IND.—The Light, Heat & Power Co. will soon begin the construction of an addition to its plant. Two new dynamos and a boiler will be required. Pres., J. S. Briggs.

CARSON CITY, MICH.—A. B. Goodwin, Village Clk., writes us that the 5-year contract with the Carson City Electric Light Co. has expired. The council is open to receive bids for cheaper lighting, all night service. The company furnished the city with 12 arc and about 90 arc lights for the business houses and 2,000 incandescent lights. Water power can be obtained about two miles distant. A. Y. Seniarn, Pres.

FLINT, MICH.—The council has awarded the contract for lighting this city with 80 or more 2,000-c. p. arc lights to the Peoples' Electric Light Co., at $70 a light a year for five years. F. P. Smith, Pres. Peoples' Electric Light Co.; E. P. Baker, Cy. Clk.; M. E. Housan, Chn. Com.

LYONS, MICH.—We are informed that this place voted April 2 by a large majority in favor of building a plant to cost $3,000. It will have 15 arc and 800 16 and 32-c. p. incandescent lights. Manager, S. W. Webber, Jr.; Clk., L. H. Hale.

CHICAGO, ILL.—The Enterprise Power, Light & Heat Co. has submitted plans for a 7-story brick addition to its building at 82 to 86 Fulton Ave., to cost about $150,000.

CHICAGO, ILL.—The Western Electric Co., Chicago, was awarded the contract, April 1, for furnishing 10 150-arc light machines at $20,500, for the proposed two municipal plants. The contract for two engines for the plants was awarded to Chas. Felms & Co., at $12,075.

CHICAGO, ILL.—Bids are asked until April 11 for furnishing the department with 50,000 ft. of No. 6 lead encased, rubber covered electric light cable. Bidders must state price a foot of cable and price a pound which they will pay the city for about 75,000 ft. of old lead encased and rubber covered cables. Edward B. Ellicott, Cy. Electrician, City Hall.

UTICA, ILL.—J. L. White, Leonore, Ill., has been awarded the franchise for a plant and water-works in this place. The plant will have 10 arc lights for city use, 50-HP. gasoline engine, etc. Population, 2,000.

SUPERIOR, WIS.—We are informed that the council has advertised for bids for a plant of 300 arc and 3,500 incandescent lights, noted in our issue of last week; estimated cost, $75,000. John McGrath, Chn. Com.; E. B. Banks, Ch. Engr.; Chas. S. Starkweather, Mayor.

ALGONA, IA.—This place voted March 28 to grant a 20-year franchise for furnishing 40 arc lights of 2,000 c. p. each at $4.50 a month. The city reserves the right to buy the plant at any time at cost.

BOONE, IA.—This place voted March 28 against building a municipal plant. J. M. Goodson, Mayor.

SPRINGVILLE, IA.—This place is reported to have voted March 28 in favor of granting a franchise. W. E. Bell, Mayor; O. C. McShane, Recdr.

GAYLORD, MINN.—We are informed that the proposed plant for this place will have 12 arc and 500 or 600 incandescent lights; estimated cost $5,000 to $6,000. Louis Barger, Chas. Clasen, and G. P. Utendorfer are on the committee. Manager, F. F. Mansfield.

HENNING, MINN.—A committee is reported to have been appointed to investigate the question of building a plant.

TWO HARBORS, MINN.—Councilman A. D. Holliday is securing data for a proposed plant for this place.

ROSCOE, S. DAK.—We are informed that it cannot be stated yet when bids will be received for building the proposed plant for the Dyea Electric Light Co., recently incorporated with a capital stock of $50,000. Pres., E. A. Mears, 234 West Franklin Ave., Minneapolis, Minn.

ST. JOSEPH, MO.—It is reported that City Electrician Stewart is urging the purchase of a 600-HP. engine for the city plant.

MALVERN, ARK.—Bids are asked until May 31 for constructing a plant for C. W. Turner, Malvern. We are informed that the plant will include ten 2,000-c. p. arc and 400 16-c. p. incandescent lights; estimated cost, $4,000. An 85-HP. engine, 100-HP. boiler, 750-c. p. alternating current dynamo, etc., will be wanted.

HOUSTON, TEX.—The plant of the Citizens' Electric Light & Power Co. was damaged by an explosion March 26, causing a loss of about $100,000. New machinery will be purchased at once. Blake Dupree, Receiver.

HEALDSBURG, CAL.—W. H. Barnes, Mayor, writes us that this place voted March 28 to issue $80,000 in bonds for a municipal plant and water-works. The water power will be located nine miles from the city. Bids for the work will be asked in a short time. O. C. Hubener, Cy. Engr.

VISALIA, CAL.—Wm. H. Hammond, Mayor; A. G. Wishon, Mgr. Water-Works, Visalia, and W. G. Henshaw, of the Union National Bank, Oakland, Cal., are interested in a proposed plant on the Kaweah River, to furnish 1,600 HP.; estimated cost, $200,000. Work will be begun in a short time, according to reports.

MARYSVILLE, CAL.—The Yuba Power Co. is reported to have been awarded the contract for supplying this place with 33 arc lights of 2,000 c. p. each. John Martin is interested.

VENTURA, CAL.—Milton Nissley has been engaged by the town board to prepare plans for the proposed municipal plant.

PROVO, UTAH.—It is reported that the Telluride Power Co. is purchasing machinery for a new plant in Provo Canyon. Gen. Mgr., L. L. Munn; Ch. Engr., P. N. Munn.

SANDY, UTAH.—A committee is reported to have been appointed to investigate the question of a plant. Over 300 subscriptions for lights have already been received.

VANCOUVER, B. C.—Bids were asked until April 4 for furnishing machinery for the proposed plant for the Golden Circle Mining Co., according to reports.

SAN JOSE, COSTA RICA, C. A.—Press reports state that the Costa Rica Electric Light & Power Co. has been organized in London with a capital of about $650,000. A general electric business will be carried on in the republic. It proposes to build a number of light railways and install electric lighting and power plants. It is believed that on account of the proximity of Costa Rica to the United States most of the material the company may require will be purchased in this market.

NEW COMPANIES.—M. B. Wheeler Electric Co., Grand Rapids, Mich.; $25,000.

Illinois Electric Co., Chicago; $20,000; F. E. Healey, L. K. Cushing.

Jordan, Elbridge & Skaneateles Heat & Light Co., Jordan, N. Y.; $25,000; Williard H. Tapan, T. Mitchell Foll, Baldwinsville, N. Y.; George E. Southard, Clarion, Pa.; Edwin Mitchell, Wayne, Pa.

Vinalhaven Electric Light & Power Co., Vinalhaven, Me.; $9,900, of which $300 is paid in; Pres., George P. Ginn, Vinalhaven; Treas. H. L. Hammond, Vinalhaven.

Geneva Power & Light Co., Geneva, N. Y.; $50,000; P. N. Nicholas, F. C. Bloodgood, Geneva; S. D. Green, J. C. Carr and M. A. Oudin, Schenectady, N. Y.

Cranford Electric Light & Water Co., Cranford, N. J.; $30,000, with $1,000 paid in; E. Edgar Heston, Cranford; David M. Taylor, Oxford, Pa.

Delford Electric Light Co., Delford, N. J.; $10,000, with $1,500 paid in; Kimball C. Atwood, Oradell, N. J.; Hugh J. Grant, ex-mayor, New York; John B. Lozier, Oradell.

Jersey City Electrical Construction Co., Jersey City, N. J.; $10,000, with $1,000 paid in; Henry C. Newton, 534 Broadway, Paterson, N. J.; John McCullough, 358 York St., Jersey City.

Montrose Electric Light & Power Co., Montrose, Colo.; $20,000; E. E. Kassler, C. M. Kassler, D. P. Barnes.

BRIDGES

HYDE PARK, MASS.—Owen Morris, C. E., Hyde Park, has been appointed to prepare plans for a bridge over the Crum Elbow Creek on the Albany and New York main highway.

PALMER, MASS.—The Pittsburg Bridge Co., Pittsburg, Pa., has been awarded a contract to construct a steel bridge of two spans, over the Swift River, in Bondsville, for the Palmer & Mason St. Ry.

MERIDEN, CONN.—Francis Atwater, Mayor, informs us that a number of small bridges will be constructed by the Meriden, Southington & Compounce R. R. Co., independent of the city.

WATERBURY, VT.—An iron bridge is to be built by the Central Vermont R. R. Co. at North Main St., over the highway bridge. E. C. Smith, Pres.——An iron bridge is to be erected by the selectmen in place of the old wooden structure, according to report.

GLOVERSVILLE, N. Y.—A resolution has been passed by the council for the construction of a bridge over the stream on Grove St.

NEW YORK, N. Y.—Reports state that plans will be prepared at once for the construction of a bridge over the Bronx River at Eighth Ave., between Williamsbridge and Woodlawn. Commissioner Moore, Bronx Borough, 177th St., Third Ave., New York.

SARANAC, N. Y.—It is reported that the town board awarded the Groton Bridge & Mfg. Co., Groton, N. Y., a contract at $4,788 to construct a bridge.

REDFORD, N. Y.—A bridge will be constructed by the Groton Bridge Co., Groton, N. Y., at this place, to cost $1,962, according to reports.

POUGHKEEPSIE, N. Y.—Bids are asked by the Poughkeepsie & Eastern Ry. Co. until April 10 for constructing culverts, bridge abutments, etc. C. Hicks, Supt., Cottage St. Station, Poughkeepsie.

SYRACUSE, N. Y.—Press reports state that $4,000 has been appropriated for the removal of the swing bridge at Butternut St.

WATERFORD, N. Y.—A bill has passed the senate for the construction of a $5,000 bridge over the canal at this place.

CAMDEN, N. J.—L. E. Farnham, Cy. Engr., writes us that the board of freeholders will meet May 11 to accept plans and advertise for bids for the construction of a drawbridge over Cooper's Creek, between Camden and Stockton, to have a span of about 50 ft. Dr. Davis, Chn. Com., Stockton.

JERSEY CITY, N. J.—It is reported that the Summit Ave. bridge over the Pennsylvania R. R. will soon have to be repaired.

GARFIELD, N. J.—The county freeholders are considering the construction of a new bridge over the river at this place, to cost about $20,000, which will be shared by Bergen and Passaic counties.

PHILADELPHIA, PA.—The American Artificial Stone Pavement & Construction Co., it is stated, will begin work on the construction of the approaches to the Penrose ferry bridge; its bid was $40,000. James A. Mundy, Pres.

CLAYMONT, DEL.—The Wilmington & Chester Electric Ry. Co. will construct a bridge over its tracks at this place.

HOWARDSVILLE, VA.—J. R. Irving, A. F. H. McCulloch and others have incorporated the Howardsville Toll Bridge Co. to construct a bridge at an estimated cost of $20,000, according to reports.

PETERSBURG, VA.—Reports state that a new bridge will be built by the Richmond & Petersburg R. R. Co. over Swift Creek.

PETERSBURG, VA.—We are informed that a contract has been let by the Norfolk & Western Ry. Co. for constructing a small bridge near this city. C. S. Churchill, Engr. Maintenance of Way, Roanoke.

ELBERON, GA.—It is reported that the board of trade is taking steps toward the construction of a bridge across Broad River; surveys also have been made for a bridge at Jones's Ferry and at Bell's Ferry.

BROWNSVILLE, TENN.—This place is talking of constructing a steel drawbridge across the Hatchie River.

HARRIMAN, TENN.—The Harriman Iron & Steel Bridge Co. has been incorporated with a capital stock of $10,000 by Geo. W. Chandler, Jas. W. Scott, Isaac Stewart, Robert M. Dodds and Robert Cassell.

CANTON, O.—The Stark county commissioners will issue $50,000 in bonds to repair bridges damaged by the recent flood.

ELMWOOD, O.—Plans and specifications have been approved by the county commissioners for the construction of an iron and steel bridge, 150-ft. span and 20 ft. wide. Bids will be asked at once.

COLUMBUS, O.—A bill is before the senate for the construction of a bridge over Euclid Creek, to cost about $15,000.——The Iron Substructure Co., Columbus, has been awarded a contract at $1,575 by the county commissioners for the substructure and paving of the bridge at Cummins Corner; also a contract has been awarded to the New Columbus Bridge Co. at $3,685 for the superstructure of the Decker bridge at Groveport over Little Walnut Creek, in Madison township.

LORAIN, O.—The question of constructing a bridge at an estimated cost of $120,000 will be submitted to a vote at the spring election. Lester Fauver, Cy. Engr.

YOUNGSTOWN, O.—A petition is being circulated for the construction of a bridge over the tracks of the Erie and the Lake Shore & Michigan Southern Railroads at McGuffy St.

WELLSVILLE, O.—The question of replacing the street railway wooden bridge by a new steel trestle is being considered.

FRANKFORT, IND.—The county commissioners have awarded a contract to John A. Ross at $2,690 to construct a bridge in Forest township.

INDIANAPOLIS, IND.—Bids are asked until April 11 for constructing a center pier for the Northwestern Ave. bridge across Fall Creek. M. A. Downing, Chn. Bd. Pub. Works.——The commissioners have been asked to construct a bridge across Bean Creek to replace the one recently washed away.

RICHMOND, IND.—The county commissioners will construct a bridge on North 10th St. to replace the one destroyed by the recent flood. H. W. Weber, Cy. Engr.

CHICAGO, ILL.—Plans have been accepted by the drainage board for the proposed bridge over the canal at Campbell Ave.

CHICAGO, ILL.—Bids are asked until May 18 for constructing the A., T. & S. Fe Ry. Co.'s bridge substructure on contract section No. 8, of the Main Drainage Channel, as stated in our advertising columns. Jas. Reddick, Clk. Sanitary District, Security Bldg.

WASECA, MINN.—Bids are asked until April 16 for constructing a steel bridge over the Le Sueur River, 6 miles from here. A. J. Lohren, County Audr.

ABERDEEN, S. DAK.—The board of education has asked the council to arrange for the construction of a viaduct across the railroad tracks at the Main St. crossing.

WHARTON, TEX.—Bids are asked by the county commissioners until April 11 for constructing a steel bridge across the Colorado River at Rocky Crossing, about eight miles from this place.

COLORADO SPRINGS, COLO.—It is reported that the Rock Island & Peoria Ry. Co. will construct about 20 iron bridges to replace the wooden structures on its line between Phillipsburg and Colorado Springs, this year, at an estimated cost of $100,000. C. W. Cobb, Supt. of Bridges and Bldgs., Cambridge, Ill.

COLFAX, WASH.—The county commissioners held a meeting April 5 to consider the question of constructing a bridge across Hangman Creek at Tekoa. John Tobin, County Audr.

LOS ANGELES, CAL.—The council will issue $20,000 in bonds for the construction of bridges, estimated by City Engineer Dockweiler.

MOSCOW, IDAHO.—Bids are asked by the county commissioners until April 12 for constructing a bridge across Little Potlatch Creek and also across Bear Creek at Kendrick.

GRAND FORKS, B. C.—A bridge to cost $2,000 will be constructed at First St., of which $1,000 has been appropriated by the government.

VANCOUVER, B. C.—The board of works has recommended an appropriation of $15,000 for constructing a steel bridge and $2,000 for bridge repairs.

BUILDINGS.

SPRINGFIELD, MASS.—L. O. Eaton, 188 Thompson St., Springfield, has been awarded the contract for erecting a 5-story brick, granite and brownstone building, with steel columns and beams, for W. D. Kinsman; estimated cost, $30,000. At the time of writing contracts had not yet been awarded for electric lighting, two elevators nor the painting and plumbing work. Arch., B. Hammett Seabury, Gill's Block, Springfield.

WORCESTER, MASS.—The following bids were received March 28, according to reports, for the erection of an addition to the county court house; Archs., Andrews, Jacques & Rantoul, 8 Beacon St., Boston, Mass.: Norton & Heminway, $371,179; Cutting, Bardwell & Co., $374,000; L. D. Willcutt & Son, $380,027; Maguire & Penniman & Co., $399,000; J. W. Bishop & Co., $384,000; Webb Granite and Construction Company, $394,000; Mack & Moore, Boston, Mass., $400,000; Woodbury & Lieghton, Boston, Mass., $389,000.

PROVIDENCE, R. I.—F. S. Curtis, Ch. Engr., New York, New Haven & Hartford R. R., New Haven, Conn., writes us that no time has yet been fixed for the letting of contracts for the construction of the new train shed to be erected by this company at Providence. The plans are not completed, but probably will be within two or three weeks; It is the intention to finish the work as soon as possible. Geo. B. Francis, Resident Engr., Boston Terminal Co., made the preliminary plans, and he writes us that the area covered, in addition to previous sheds, is about two acres; the foundations are nearly built.

TORRINGTON, CONN.—Hitchcock & Bro., of Torrington, are said to have been awarded the contract for erecting the new town hall, at $30,497.

BROOKLYN, N. Y.—Plans have been prepared for two 5 and 7-story brick and stone apartment buildings to be erected at Nostrand and St. Mark's Aves., for J. H. Roberts; estimated cost, $110,000. Arch., Charles Roberts, 1224 Fulton St., Brooklyn.

CENTRAL ISLIP (L. I.), N. Y.—The following bids were received by the Manhattan State Hospital, 1 Madison Ave., New York, March 31, for heating and ventilating systems and water supply for cottages Nos. 4, 5 and 6, Group D, at Central Islip:

E. D. Bates, Syracuse, N. Y.	$19,474
E. Rutzler, 178 Center St., New York	20,32[illegible]
Gaylord & Eitapence, Binghamton, N. Y.	21,840
Blake & Williams, 362 West Broadway, New York	22,626
Kutz & Bausch	23,000
Williams & Manoque, Troy, N. Y.	23,35[illegible]
Frank Dobson, East 42d St., New York	23,900
Baldwin Engineering Co., 106 Beekman St., N. Y.	24,45[illegible]
P. Feul, Brooklyn, N. Y.	25,44[illegible]
The Mercer Co., 137 Center St., New York	25,641
Edward Joy, Syracuse, N. Y.	25,800
Evans, Almirall & Co., 44 Dey St., New York	25,831
Wells & Newton Co., 235 Eldridge St., New York	27,12[illegible]
W. M. Tobin, Syracuse, N. Y.	28,29[illegible]

NEW YORK, N. Y.—Bids are asked by the department of public buildings, 346 Broadway, until April 12, for alterations, additions and repairs to buildings on southwest corner of Prince and Wooster Sts., to be used as a municipal district court house. Archs., Horgan & Slattery, 1 Madison Ave.——Plans have been filed by Henriette K. White, 208 West 118th St., for a 10-story brick flat and store building at 80th St. and Columbus Ave., to cost $235,000. Archs., Henry F. Cooke, 111 5th Ave.; by G. W. Levy, 121 West 78th St., for an 8-story brick warehouse at 20 East 17th St., to cost $95,000. Archs., Cleverdon & Putzel, 41 Union Square; by Cecelia Haft, 15 East 112th St., for three 5-story brick flat and store buildings on 107th St., near 1st Ave., to cost $69,000. Archs., G. F. Pelham, 503 5th Ave.; by Stein, Cohen & Roth, Owners and Archs., 41 Union Square, for four 5-story brick flat buildings at 135th St. and 5th Ave., to cost $100,000; by John D. Mennie, 1843 Madison Ave., for four 5-story brick flat buildings on 117th St., near Park Ave., to cost $96,000. Arch., Adolph Balschun, Jr.; by N. L. Arnoux, 178 West 10th St., for five 3-story brick dwellings on 142d St., near the Boulevard, to cost $60,000. Arch., C. Steinmetz, 60 Liberty St.——John R. Sheehan, 62 East 90th St., has received the contract for erecting the horticultural buildings for Botanical Gardens at Bronx Park, at $11[illegible],000. Archs., Lord & Burham, 160 5th Ave.

NEW YORK, N. Y.—The following bids were received by the department of charities, April 4, for materials and work required for alterations and new plumbing at Infants' Hospital, Randall's Island:

John F. Johnson, 114 East 124th St.	$21,977
James Fay, 205 East 51st St.	22,690
J. W. O'Brien, 651 6th Ave.	27,8[illegible]
Christopher Nally Co., 102 West 81st St.	28,348

GENESEO, N. Y.—The contract for erecting the new court house at this place is said to have been given to E. J. Forbes and Manion & O'Brien, of Geneseo; total cost, $23,896.

BAYONNE, N. J.—Bids are asked by the board of education, until April 19, for the construction of additions to public school buildings Nos. 4 and 6. Secy., R. T. Hewitt; Arch., Hugh Roberts, 76 Montgomery St., Jersey City, N. J.

EAST ORANGE, N. J.—Martin D. Walsh, of Brooklyn, N. Y., was the lowest bidder, March 28, for the erection of a new town hall in East Orange, at $26,000.

HARRISBURG, PA.—Bids are asked until April 18, according to reports, for the construction of the new state capitol building. The changed specifications require a bond of $150,000 for the completion of the work by November 15, and a deposit of $15,000. Arch., Henry Ives Cobb, Chicago, Ill.

PHILADELPHIA, PA.—Bids are asked until April 11 for installing a steam heating system at the Municipal Hospital, and for 2-in. lumber and Georgia or Florida yellow pine flooring. Frank M. Riter, Director Public Safety, City Hall Bldg.

PITTSBURG, PA.—C. L. Magee has awarded the contract for the street work for his new restaurant building on Fifth Ave. to the Pittsburg Bridge Co. Arch., J. F. Osterling, 702 Times Bldg.

WASHINGTON, D. C.—Bids are asked by F. W. Palmer, Public Printer, until April 14, for furnishing and erecting seven electric elevators in the government printing office. —We are informed that the following bids were received by the District Commissioners March 30, for erecting a school building for the Industrial Home, near Georgetown and Rockville Road; Baldwin & Peake, $28,455; Pavarini & Greer, $25,400; Gleeson & Humphreys, $28,649; G. W. Harris & Son, $25,925, all of Washington.

HAMPTON, VA.—The contract for the construction of the new jail building for Elizabeth City county has been awarded to J. N. Brinsone, of Hampton, at $4,464, and the iron and steel work to the Van Dorm Iron & Steel Co., of Cleveland, O., at $4,018. Other bids were: E. M. Tennis, $4,675; W. F. Clarke, $4,866, and A. D. Wallace, $4,836. For the iron and steel work the Portsmouth Iron Works bid $4.10.

ROCK HILL, N. C.—A fire in this city, April 3, destroyed twelve buildings in the business portion of the town, causing a reported loss of $250,000; insurance, $150,000. Among the losers are, True & Kluttz, J. B. Johnston and A. Friedheim & Bro.

DECATUR, GA.—The lowest bids received by Ordinary Ragsdale, March 28, for the erection of a new court house for De Kalb county, were that of R. P. Williams, Anderson, S. C., using stone, at $33,945; and that of W. W. McAfee, Atlantic, Ga., using brick, at $23,955.

NASHVILLE, GA.—It is reported that W. I. Hugger, of Luverne, Ala., has been awarded the contract for erecting the new court house for Berrien county, at $15,918.

SAVANNAH, GA.—Bids are asked by the supervising architect, Washington, D. C., until April 27, for the interior finish, plumbing, gas piping and approaches for the U. S. building in this city.

ALEXANDRIA, LA.—Bids are asked by the directors of the Alexandria Hotel Co., until April 18, for the erection of a hotel building in this city. Pres., Thomas Clements, Alexandria; Arch., E. E. McKibbon, Shreveport, La.

COLUMBUS, O.—Bids are asked by R. D. Schultz & Son, Louisville, O., until April 18, for the erection of a steel frame store and office building in this city at North High and Hickory Sts. Yost & Packard, Archs., Columbus; The Osborn Co., Civil Engineers, Cleveland, O.

EATON, O.—The question of erecting a new court house for Preble county, at a cost of $125,000, will be voted upon at the spring election.

MILWAUKEE, WIS.—The following bids were received by the supervising architect, Washington, D. C., April 2, for building the approaches to the U. S. building in this city:

E. J. Roberts, Milwaukee, Wis.	$21,971	4 mos.
Bentley Construction Co., Milwaukee. ..	18,937	75 days.
Schillinger Bros. Co., Chicago, Ill......	19,488	60 "
Western Pav'g & Supply Co., Milwaukee	21,414	90 "
E. D. Briggs, Aurora, Ill.............	22,465	90 "
Hennessey & Cox, St. Paul, Minn.....	20,823	3 mos.
Stainsen & Blome, Chicago, Ill.	20,200	3 "
Bonnet & Michie Co., Milwaukee, Wis..	20,842	90 days.
Adolph Anderson, Chicago, Ill.	18,990	90 "
Walter Arnold, St. Cloud, Minn.	23,170	75 "

MILWAUKEE, WIS.—Bids are asked until April 14 for the erection of the new south side high school building at Lapham St. and 8th Ave. G. H. Benzenberg, Comr. Pub. Wks.

IOWA CITY, IA.—Proudfoot & Bird, of Des Moines, Ia., have been selected as architects for the new building to be erected here this summer for the State University of Iowa at a cost of about $150,000. Pres., C. A. Schaeffer.

ST. LOUIS, MO.—We are informed that contracts have been placed for the mechanical and electrical equipment of the large mercantile building being erected on Washington Ave., between 9th and 10th Sts., by the Commerce Realty Co. This building has been leased for 10 years, beginning June 1, to the Hargadine-McKittrick Dry Goods Co. The contract for steam equipment, which has been awarded to the Kupferle Bros. Mfg. Co., includes three 150-HP. water tube boilers with down draft furnaces, the Paul system of steam heating, two 300-HP. Hoppes feed water heaters, boiler-feed, house and air pumps, and the complete system of pipe work; 125 lbs. pressure will be carried. The General Electric Co., Schenectady, N. Y., has secured the contract for electrical equipment, including three compound Imperial engines of 120 HP. each, direct connected to 3 75 K-W. direct current dynamos. There will be about 600 16-c. p. incandescent lights and 200 long burning enclosed arc lights. The plant will also furnish current for driving the entire elevator plant, the contract for which has been awarded to the Sprague Electric Elevator Co., New York. This contract covers two passenger elevators, six freight elevators, one dumb-waiter and one ash-hoist. The distribution will be on the 220 volt two wire system for all the different kinds of service. The elevators are to be run from the same generator units as the lighting system. Eames & Young, Archs., 304 North 8th St.; Bryan & Humphrey, Consult. Engrs., Turner Bldg.

DENVER, COLO.—John A. McIntyre, of Denver, was awarded the contract, March 28, for the construction of the new mint building to be erected in this city, at $247,874.

PORTLAND, ORE.—Bids are asked by the supervising architect until April 15 for the building of approaches, superstructure, etc., of the new U. S. Custom House Building in this city.

PROVO, UTAH.—S. S. Jones, Mayor, writes us that the Provo Opera House Co. contemplates the installation of a heating apparatus and a dynamo for electric light in its building, which has a seating capacity of 850. Quotations and other information regarding machinery needed for the above is solicited.

MONTREAL, QUE.—Bids are asked until April 25, according to reports, for rebuilding the church building of the Church of St. Jean Baptiste, which was burned in January; estimated cost, $140,000. Pastor, M. Auclair.

PICTON, ONT.—Bids are asked, until April 11, for work required in the enlargement of the First Methodist Church and school buildings in this town. Secy., W. H. Williamson; Archs., Power & Son, Kingston, Ont.

BLYTHFIELD, MAN.—Bids are asked until April 9 for the erection of a school building for the Ashland School District No. 86. Secy., John Cuddy, Blythfield; Arch., J. H. G. Russell, Winnipeg, Man.

WATER-WORKS.

NASHUA, N. H.—It is reported that the Pennichuck Water-Works Co. will make improvements to its works to cost about $75,000. Supt., H. G. Holden.

BOSTON, MASS.—Bids are asked until April 8 for furnishing valves for the water department; bond, $1,500. J. R. Murphy, Water Comr.

MIDDLEBORO, MASS.—We are informed that only the ordinary annual extensions to the mains will be made this year by day labor. Supt., Jos. E. Beals; A. H. Eaton and Foster A. Harlow are on the committee.

PEABODY, MASS.—It is stated that the committee will recommend the construction of a new stand-pipe of 1,500,000 gallons capacity. A new supply pipe will be laid. Estimated cost, $19,000. Supt. A. N. Andrews.

WINTHROP, MASS.—This place has been authorized to obtain a water supply for all purposes from the Metropolitan water supply; population, 4,000. Chn. Com., S. G. Irwin.

MILLVILLE, MASS.—The committee having in charge the construction of the works for fire protection in Millville (Blackstone), has awarded the following contracts: Excavating and laying the pipes, Moore & Co., Milk St., Boston; valves and hydrants, Chapman Valve Mfg. Co., Boston; 250 HP. boiler, Almy Water Tube Boiler Co., Providence; pipes and special castings, R. D. Wood & Co., Philadelphia, Pa.; pump, 1,500 gallons a minute, Knowles Steam Pump Works, Boston. John E. Ellis, Engr., Woonsocket, R. I.

GREENWICH, CONN.—The Rippowam Improvement Co. has been incorporated to supply water to the works of the Rippowam Woolen Mfg. Co. Capital stock, $750. Pres., F. A. Springer.

BRANFORD, CONN.—The Branford Electric Co. will begin the construction of the proposed works at once, according to reports; estimated cost, $80,000. Population (1890), 4,460. Engrs., Nichols & Potter, New Haven, Conn.; Pres., A. M. Young.

NOANK, CONN.—The question of a water supply is being considered, according to reports.

CHARLOTTE, N. Y.—P. M. Schwartz, Clk., writes us that the town is asking for bids for furnishing plans, maps and specifications for the proposed works and light plant, for which $25,000 in bonds were voted March 15.

MIDDLETOWN, N. Y.—An election will be held April 22 to vote again on the question of issuing $175,000 in bonds for increasing the water supply. W. D. Stratton, Chn. Comrs.

MOUNT KISCO, N. Y.—The board of trustees has abandoned the plan for gravity works, the lowest bids for which were reported in our issue of Feb. 10. These bids being rejected, new bids are wanted for constructing a pumping plant. Engr., E. Delavan Smalley, Syracuse, N. Y.; Clk., W. E. Osborne.

PITTSFORD, N. Y.—John J. Finnigan, of Lyons, N. Y., has been awarded the contract for the several canal crossings for the proposed water-works; bids for the construction of which are asked until April 27, as stated in our advertising columns last week.

ROME, N. Y.—The question of building an auxiliary pumping station, to cost about $20,000, is being considered. Mayor Kingsley may be addressed.

RHINEBECK, N. Y.—It is stated that Geo. Ellison, Van Buren St., Kingston, N. Y., is making surveys for the proposed works.

SCHENECTADY, N. Y.—Bids are asked until April 8 for furnishing 417 gross tons of cast-iron water pipe and 15 gross tons of special castings, 4 to 16-in. gate valves, hydrants, etc.; check, $100. E. N. Schermerhorn, Chn. Comrs.

ALLEGHENY, PA.—Bids are asked until April 11 for furnishing and setting in place a 250-HP. water tube boiler and stoker at the Howard St. pumping station. Robt. McAfee, Dir. Pub. Wks.

CHESTER, PA.—The New Chester Water Co. has awarded a contract for extending the main 300 ft. further in the Delaware River, at a cost of about $20,000, to the Houston Engineering Co. Work will begin about April 30. It is stated that a filter plant will be built later. Supt., W. B. Chadwick.

MAHONEY CITY, PA.—The Broad Mountain Water Co. has been incorporated with a capital stock of $5,000, of which $500 is paid in. Treas., John B. Lieberman, Mahoney City; incorporators, Chas. D. Kaier, Jos. J. Quick, of Mahoney City, and others.

MEADVILLE, PA.—It is stated that an election will be held, April 7, to again vote on the question of issuing $150,000 in bonds for the purchase of the works of the Meadville Water Co. For further information see the 1897 "Manual of Am. Water-Works." W. A. Doane, Cy. Engr.

MEDIA, PA.—F. H. Hall, Pres. Council, informs us that Henry C. Howard, Frank I. Taylor and Winfield S. Monall compose the committee that is arranging for the proposed improvements to the works; estimated cost, $20,000.

PHILADELPHIA, PA.—Bids are asked until April 12 for furnishing stop-box castings, brick stack and connecting flue to the Belmont pumping station, etc. Thos. M. Thompson, Dir. Dept. Pub. Wks.

SHARPSVILLE, PA.—It is probable that bids for constructing the proposed works will be asked. It is believed that a supply will be secured in heavy water-bearing gravel, at a convenient point; thus saving drilling 200 ft. for a supply, as was first contemplated. Estimated cost, $30,000. Engr., J. B. Strawn, 273 Lincoln Ave., Salem, O.

WILKES-BARRE, PA.—Local papers state that the Spring Brook Water Supply Co. has rejected the bids received March 4 for building a new dam in Mill Creek, described in our issue of March 3. It is considering the question of changing the plans and of building the main wall of the dam of steel. The company has applied for permission to lay 14-in. mains in a number of streets.

BOONSBORO, MD.—Press reports state that the mayor and council have awarded a contract to the Boonsboro Water Co., represented by H. G. Frederick, of Millersburg, Pa., to supply Boonsboro with mountain water for ten years at $500 a year. The company will build a line from the Monument springs on South Mountain to carry the water to Short Hill, just above town, where a reservior will be built. Twenty-five plugs will be put in. The work will commence in a few weeks.

CALHOUN, GA.—Bids are asked until about April 20 for constructing works, for which $12,500 in bonds were voted March 26. W. L. Hillhouse, Mayor, writes us that the works will have two 40-HP. boilers, two 500,000-gallon pumps, 3¼ miles of 4, 6 and 8-in. pipe, 24 hydrants, a 500,000-gallon concrete reservoir. Population, 900. Des. Engrs., Walton & Wagner, Rome, Ga.

WASHINGTON, GA.—Efforts are being made to organize a local water-works company with a capital stock of $20,000.

COLUMBUS, MISS.—W. D. Humphries, Mayor, writes us that on account of an error another election will be held the first week in May to vote on the question of issuing $70,000 in bonds for additions to works and for a new sewerage system, reported in our issue of last week.

GALLATIN, TENN.—E. O. Buchanan, Chn. Public Property Com., writes us that the question of constructing works has been placed in the hands of a committee to investigate the cost, feasibility, plans, etc. Population, 3,000.

TULLAHOMA, TENN. — H. Henley, Mayor, writes us under date of March 30 that no contracts have been let for constructing works; it is not likely the board will let one at present.

CLINTON, KY.—It is reported that the Clinton Water & Light Co. is considering estimates for constructing its proposed works and light plant, to cost about $11,000. Population (1890), 1,347. Des. Engrs., Sanders & Porter, Columbia Bldg., Louisville, Ky.

CLEVELAND, O.—The circuit court has decided the injunction case restraining the city from asking for new bids for furnishing $106,000 worth of cast-iron water pipe, in favor of the city. The director of public works will probably soon ask for new bids.

ELYRIA, O.—M. H. Levagood, Mayor, writes us that this city voted, April 4, in favor of building new works to cost $200,000. Plans have been prepared by L. E. Chapin, Cy. Engr., of Canton, O. Work will be begun at once. Population, 9,000.

YOUNGSTOWN, O.—The board of water-works trustees have asked for bids for furnishing 500 tons of cast-iron water pipe.

FORT WAYNE, IND.—D. L. Baugher is reported to have been awarded the contract for sinking a new 12-ft. supply well, to be 70 ft. deep, at the new pumping station, at $3,970.

CASS CITY, MICH.—Councilman C. W. Keller writes us that nothing definite has yet been decided upon in regard to the proposed works and light plant, for which bonds were voted March 14. Population, 1,300.

CHICAGO, ILL.—Bids are asked until April 13 for laying water mains in five streets. L. E. McGann, Pres. Bd. Local Improvements.

EDWARDSVILLE, ILL.—Bids are asked until April 20 for constructing the works described in our issue of last week; estimated cost, $70,000. Consult. Engr., J. A. Holmboe, 9th and Jefferson Sts., Louisville, Ky.; Treas., Chas. Boeschenstein.

PLAINFIELD, ILL.—H. D. Hallet, Aurora, Ill., has been engaged to prepare plans and specifications for the works reported in our issue last week; estimated cost, $5,500. About six miles of mains will be required. John Matthews, Joliet, Ill., has the contract for sinking a well. Wm. G. Stopp, Clk.

ROCK ISLAND, ILL.—Bids are asked until April 18 for the excavation and masonry for the water-works settling basins, filters and reservoir, as described in our advertising columns. J. A. Harman, Consult. Engr., Peoria, Ill. T. J. Medill, Jr., Mayor; A. D. Huesing, Cy. Clk.

UTICA, ILL.—We are informed that the proposed works and light plant, for which J. L. White, of Leonore, Ill., has the franchise, as stated in our last issue, will include a compressed air system, two miles of 4 to 10-in. mains, 20 hydrants, a 1,000,000-gallon pump, an air compressor, a 50-HP. gasoline engine, etc. Population, 2,000.

LA CROSSE, WIS.—The M. Funk Boiler Works Co. has been awarded the contract for laying 265 ft. of pipe and constructing a crib at $926. The contract for putting in the pipe, finishing intake, etc., has been awarded to F. R. Weston at $2,770.

DES MOINES, IA.—Press reports state that in a few weeks a plan for the city to buy the works of the Des Moines Water-Works Co. for $850,000 will be submitted to the council. This offer was made by the citizens committee a year ago and was rejected. The deal is to be put through by foreclosure proceedings and the city will make the complete payment in 12 years, interest to be paid at the rate of 4%. It was but two years ago that the water company wanted $2,000,000 for the plant. Mayor MacVicar has vetoed the resolution to employ John W. Hill, Cincinnati, to prepare plans for new works.

BUFFALO CENTRE, IA.—This place will vote on the question of building works, according to reports.

ELMA, IA.—It is stated that this place voted March 28 against issuing $6,000 in bonds for works. D. J. O'Donnell, Cy. Clk.

MORTON, MINN.—Geo. Welch writes us that nothing definite has been decided upon in regard to the proposed works, reported in our last issue.

MARSHALL, MINN.—S. P. Wheeler has been awarded the contract for sinking an 8-in. artesian well at $556, for an increased water supply, according to reports.

GRAND ISLAND, NEB.—It is reported that this place is considering the question of improving the works. A. Cosh and H. W. Potter are on the committee.

KIRKWOOD, MO.—This place is reported as making arrangements to secure permission to lay mains to Webster Groves for a water supply. The latter place voted March 22 to build works, a water supply to be secured from St. Louis.

SWEETWATER, TEX.—Dan. S. Park, Colorado, Tex., writes us that he has withdrawn all offers for the sale of the works of Colorado to Sweetwater, reported in last week's issue. The works will continue to be operated in Colorado, Tex.

GREENVILLE, TEX.—The Greenville Water & Electric Light Co. has offered to sell its works to the city. Mgr., Frank Owen; Mayor Chapman may be addressed.

RODGERS, TEX.—It is stated that a flow of about 16,000 gallons of water a day has been reached by the artesian well at this place at a depth of 1,700 ft. Work will be continued until a 6-in. flow has been obtained. Jos. S. Thompson, Waco, Tex., has the contract.

BRECKINRIDGE, COLO.—The question of building new works for all purposes, to cost about $8,000, is being considered.

WARRENTON, ORE.—It is stated that plans for works for this place and Flavel are being considered.

HOQUIAM, WASH.—Harry C. Heermans, Corning, N. Y., writes us that nothing has been settled in regard to the proposed works for this place, reported in our last issue.

SPOKANE, WASH.—The board of public works proposes to purchase a new pump at a cost of $4,223, new valves, hydrants, etc., to cost $4,055, about 21,000 ft. of steel pipe to cost $64,680, etc.

CHEROKEE, CAL.—The question of building works is reported as being considered.

HEALDSBURG, CAL.—W. H. Barnes, Mayor, writes us that this city voted March 28 to issue $80,000 in bonds for city works and a light plant. Bids will be asked for the work in a short time. O. C. Hubener, Cy. Engr.

NEVADA CITY, CAL.—J. C. Rich, Pres. Bd. Trustees, writes us that C. D. Vincent, Oakland, Cal., has been awarded the contract for constructing works, noted in our last issue. The Jas. Stanley Co., San Francisco, has the contract for the hydrants at $21 each. Population, 6,000. Des. Engr., Fred. M. Miller, Grass Valley, Cal.

PINOLE, CAL.—It is stated that the California Powder Co. is making arrangements to supply this place with water.

SONOMA, CAL.—It is stated that an election will be held April 26 to vote on the question of issuing $18,000 in bonds for municipal works. Population (1890), 757. Engr., C. F. Ryland, Mills Bldg., San Francisco, Cal.

RAT PORTAGE, ONT.—Bids are asked until April 20 for supplying the material and for constructing works in this place, as stated in our advertising columns. Engr., J. Chalmers; Chn. Comrs., R. Hall.

LENOXVILLE, QUE.—Frank Thompson & Co., Sherbrooke, Que., are reported to have been granted a franchise for works.

CRICKLADE, WILTSHIRE, ENG.—Premiums of $105 and $52 are offered for plans for works for this town. Plans will be received until April 30. Harry Bevir, Clk., Union Offices, Wootton Bassett.

SEWERAGE

NEW MARKET, N. H.—It is proposed to construct a main sewer at a cost of about $2,500.

CONCORD, MASS.—At the annual town meeting, April 4, it was voted to construct a system to cost $70,000. Chas. E. Brown, Town Clk., writes us that the committee consists of Wm. Wheeler, H. J. Hosmer and Woodward Hudson.

WEST NEWTON, MASS.—H. D. Woods, Cy. Engr., writes us that no work on the proposed sewer to Newton Upper Falls has been ordered as yet. H. H. Hunt, Chn. Com., West Newton.

HARTFORD, CONN.—E. R. Pattison has been awarded the contract for constructing a sewer in Farmington Ave. at $9,740; P. H. Harrison & Sons have the contract for building a sewer in Prospect Ave. at $6,027.11. The next lowest bidder was Jas. C. Smith at $6,027.35.

JAMAICA (L. I.), N. Y.—The question of building a sewage disposal plant and of extending the system is being considered.

HUDSON, N. Y.—Bids were asked until April 6 for constructing a main sewer 2,890 ft. long; bond, $10,000. Wm. S. Hallenbeck, Secy. Pub. Wks.

NEW YORK, N. Y.—Bids are asked until April 14 for constructing 800 ft. of 30-in pipe sewers in Central Park, etc. The work will require 600 cu. yds. of rock excavation and 12,000 ft., B. M., of lumber. Geo. C. Clausen, Park Comr., the Arsenal, Central Park.

ROCHESTER, N. Y.—Bids are asked until April 12 for constructing pipe sewers in three streets, to cost about $6,200. Chas. M. Beattie, Clk. Executive Bd.——Edwin A. Stewart, Cy. Engr., is preparing plans for a 15 and 18-in. cast-iron pipe sewer for the entire length of Werner Park.

TROY, N. Y.—Bids are asked until April 12 for constructing a 12-in. pipe sewer in 14th St. E. O. Ross, Secy. Contracting Bd.

WOODBURY, N. J.—D. T. Mathers, Cy. Clk., writes us that no action has yet been taken in regard to the proposed system. Whatever work may be done will be in charge of the street committee, composed of B. W. Andrews, Theo. F. Burkett and D. F. Hendrickson.

ALLEGHENY, PA.—Bids are asked until April 12 for constructing a lateral sewer in Watson Boulevard. Robt. McAfee, Dir. Pub. Wks.

CORRY, PA.—C. B. Potter, Cy. Clk., writes us that Ulrick, Nissley & Williams, Springfield, O., have been awarded the contract for constructing a mile of 8, 10 and 12-in. pipe sewers. Cy. Engr., G. D. Gilbert; Chn. Com., B. W. Stennett.

GREENSBURG, PA.—The committee has recommended that the Coal Tar Run main sewer be extended. Other sewer work is also proposed. Councilmen J. K. Long, Goodbin and Light may be addressed.

MAHONEY CITY, PA.—J. M. Kutz, Chn. Com., writes us that about 2,300 ft. of 18-in. pipe sewer will be built at a cost of about $5,000. The work will be done by the borough. M. D. Bowman, Cy. Engr.

TAKOMA PARK, D. C.—This town has been authorized to spend $40,000 for a system, water-works, etc.

NEWPORT NEWS, VA.—M. Honan & Sons, Chester, Pa., have been awarded the contract for constructing a system, as advertised in Engineering News, at $75,795. The other bids were as follows:

McIlwain, Unkefer & Co., Pittsburg	$77,152
Malone & Frescoln, Lancaster, Pa	90,761
Edward J. Clark, Brooklyn, N. Y	82,913
B. J. Coyle, Washington	104,632
Mason, Hoge, King & Co., Frankfort, Ky.	94,545
Sweeney & Houpston, Pittsburg, Pa	88,808
Crawford Paving Co., Washington, D. C	150,157
John Jacoby, Wilmington, Del	77,680
J. R. Fell, Trenton, N. J	87,651

WHEELING, W. VA.—Bids are asked until April 9 for furnishing sewer pipe for the year, bond, $1,000, and for hauling brick and sewer pipe, bond $500. W. H. Hornish, Cy. Clk.

AKRON, O.—The city commissioners will build a new sewer in Main St., average depth 10 ft. E. S. Day and G. A. Kempel, City Comrs.

CLEVELAND, O.—Bids are asked until April 14 for constructing sewers in five streets, check, $100; until April 21 for a main sewer in Gordon Ave., check, $3,000, and until April 28 for sewers in fourteen streets and a main sewer in Desmond St., checks, $500 and $3,000, respectively. Geo. R. Warden, Dir. Pub. Wks.

DAYTON, O.—The council is considering the question of issuing $50,000 in bonds for storm sewers.

SANDUSKY, O.—Bids are asked until April 13 for constructing a 24 × 36-in. brick sewer in Wayne St., to cost about $1,000; check, $500. A. W. Miller, Cy. Clk.

TOLEDO, O.—The council has voted to construct a 90 to 78-in. brick sewer in Seaman and other streets. L. P. Harris, Cy. Clk.

CHICAGO, ILL.—Bids are asked until April 13 for constructing sewers in 14 streets. L. E. McGann, Pres. Bd. Local Improvements.——Plans are being prepared for a new sewage pumping station at the foot of 39th st., for the intercepting sewer system. The building will be 90 × 200 ft., and will be arranged to have six 48-in. and four 35-in. centrifugal pumps. The pumps are to be built at the intersection of the 20-ft. conduit in 39th St., with a 12-ft. sewer on the south and a 5-ft. sewer on the north. The foundations of the building will have to be sunk to bed-rock to sustain the great weight imposed on them. Twenty-two feet of sand and 20-ft. of soft clay will have to be removed before the piles can be driven. When the pumps are in place they will lift 300,000 gallons a minute.

PRINCETON, ILL.—E. A. Vaughan, Cy. Clk., writes us that it is not known if anything will be decided upon in regard to the proposed system. Plans were prepared last year by Alvord & Shields, 1140 The Rookery, Chicago, and have been accepted and approved by the council.

BARNESVILLE, MINN.—Chas. S. Marden, Attorney, writes us that it will be about three months before work can be begun on the proposed system, water-works and light plant. The city cannot issue bonds for any purpose under present charter. A new charter has been proposed, and if adopted by the people will admit the issuance of bonds.

BELOIT, WIS.—City Engineer Wilson writes us that one or two sewers are contemplated. The city has not yet been divided into sewerage districts; plans are not completed.

ANACONDA, MONT.—Bids are asked until April 14 for constructing lateral and main sewers in improvement district No. 4. T. O'Leary, Cy. Clk.

PUEBLO, COLO.—J. B. Orman, Mayor, writes us that the council will likely let a contract in May for constructing sewers.

SEATTLE WASH.—Stirrat & Goetz have been awarded a contract for constructing a sewer in three streets at $2,649.

MARTINEZ, CAL.—C. L. Huggins, Cy. Engr. of Berkeley, Cal., is preparing plans and estimates for a system. for Valona. Some of the residents are interested in forming a sanitary district.

PALO ALTO, CAL.—An election will be held April 28 to vote on the question of issuing $20,000 in bonds for a system.

PINOLE, CAL.—It is stated that the California Powder Co. is considering the question of building a system and also of furnishing water.

SALINAS, CAL.—L. U. Grant has been awarded the contract for building a system at the works of the Spreckels Beet Sugar Co. It will have four miles of 54-in. brick to 8-in. pipe sewer.

SAN RAFAEL, CAL.—G. L. Richardson, Cy. Engr., writes us that ordinance No. 325 determining the necessity of constructing an outfall sewer and tidal flushing basin was passed March 14. An election to vote on the question of issuing $22,000 in bonds for the work will be held in the near future.

YUMA, ARIZ.—It is stated that the council is arranging to construct a system; to empty into the Colorado River.

FORMBY, LANCASTERSHIRE, ENG.—Plans are asked until July 1 for a system for this town. First prize, $500; second, $250; third, $125. T. Carlyle, Rougemont Victoria Road, may be addressed.

GARBAGE DISPOSAL-STREET CLEANING

GLOUCESTER, MASS.—The board of health has recommended the early consideration of the question of establishing a garbage disposal plant.

WHEELING, W. VA.—The following bids were received March 31 for removing the garbage, dead animals, etc., for one year: John J. Kennedy, 56 23d St., $11,425; Louis W. Conrad, 138 Wood St., $9,700; Thomas Coffee, $9,000; Chas. H. Becker, $10,500; Geo. F. Naber, and Wm. T. Holmes, $10,400; William Carney, $10,800; Robt. D. Cline, $8,800.

CLEVELAND, O.—Local papers state that the Buckeye Reduction & Refuse Co., recently awarded the 5-year contract from May 1, has sub-let the contract to the Newburg Reduction Co., incorporated March 25 with a capital stock of $85,000, by N. P. McKean, R. D. Morgan, R. H. Carlisle and others.

YOUNGSTOWN, O.—Christian Mauser, Youngstown, has been awarded the contract for building the plant in this city for the Dixon Sanitary Garbage Crematory Co.

SPOKANE, WASH.—Health Officer Potter is again urging the construction of a plant to cost about $40,000.

STREETS AND ROADS

NEW HAMPTON, N. H.—This town will hold a meeting April 12 to consider the question of purchasing a new road machine.

MANCHESTER, N. H.—We are informed that about $15,000 worth of paving will be done this year. Horace P. Simpson, Chn. Bd. St. Comrs.

RANDOLPH, MASS.—The selectmen have been authorized to issue $5,000 in 5% bonds for the purchase of a road roller.

REVERE, MASS.—Bids are asked until April 7 for constructing a state highway 1,400 ft. long. Massachusetts State Highway Commission, 4 Mount Vernon St., Boston.——Bids are asked until April 8 for laying edgestones and flagstones. Wm. T. Janvrin, First Selectman.

WALTHAM, MASS.—Bids are asked until April 13 for constructing a highway at the Hobb's Brook storage basin, surety $500. L. M. Hastings, Cy. Engr., Cambridge, Mass.

SOUTHINGTON, CONN.—The selectmen propose to macadamize the Shuttle Meadow Road as far as New Britain.

WINDSOR LOCKS, CONN.—It has been voted to appropriate $3,000 for macadamizing highways.

GROTON, CONN.—The selectmen are having plans prepared for a macadam road from the ferry landing to the railway station, a distance of one mile, to cost $3,000.

ALBANY, N. Y.—The council has passed a resolution to pave First St., between Judson St. and Ontario St. It is also proposed to pave Green St. with brick or granite. Horace Andrews, Cy. Engr.

BUFFALO, N. Y.—Bids are asked until April 15 for grading the approaches to the Casnovia Park Bridge. Jno. L. Brothers, Supt. Park Comrs.——Bids are asked until April 14 for paving portions of Joslyn Place, Alexander Place, Huron St. and High St. R. G. Parsons, Secy. Bd. Pub. Wks.

DANSVILLE, N. Y.—The board of trustees is about to purchase a stone crusher and rolling machine for about $5,000.

BUFFALO, N. Y.—Bids are asked until April 20 for paving Grosvenor St., and macadamizing Gallatin Ave. R. G. Parsons, Secy. Bd. Pub. Wks.

GENEVA, N. Y.—Bids are asked by the board of public works until May 2 for asphalt or brick paving, as stated in our advertising columns. Edward Seybolt, Supt.

NEW YORK, N. Y.—Bids are asked by the park department, Arsenal Bldg., Central Park, until April 14, for furnishing 21,250 Trinidad asphalt tiles.

NEW YORK, N. Y.—Bids are asked by the department of parks, Arsenal Bldg., Central Park, until April 14, for macadamizing about 9,800 sq. yds. of the Boston Road in Bronx Park, and furnishing about 150 cu. yds of Tompkins Cove blue limestone screenings. Bids are asked until April 7 for furnishing about 1,030 cu. yds. of blue limestone screenings. Geo. C. Clausen, Comr. Parks.

ROCHESTER, N. Y.—Bids are asked until April 12 for the following work: Glenwood Ave. asphalt pavement, to cost $38,000; Glenwood Ave. brick pavement, $40,800; Chester St. cement walk, $725; No. 14 School cement walk, $550; Raines Park grading, $1,500; Sawyer St. grading, $3,500. Chas. M. Beattie, Clk.

SING SING, N. Y.—The town has voted to expend $6,000 in macadamizing the Albany Post Road.

ATLANTIC CITY, N. J.—An ordinance is before the council for Telford macadamizing in portions of Vermont Ave., Pacific Ave., Arkansas Ave., Tennessee Ave. and South Carolina Ave.

CAMDEN, N. J.—Bids will be asked about June for constructing asphalt pavement to the amount of about $200,000. L. E. Farnham, Cy. Engr.

JERSEY CITY, N. J.—Bids are asked until April 11 for the following improvements in Bay Side Park and Columbia Park: 3,200 cu. yds. of earth excavation, 6,000 cu. yds. of earth filling; 77,000 sq. ft. of granolithic sidewalk, etc.; also for improving Lenox Ave. by about 5,950 cu. yds. of earth excavation, 8,650 cu. yds. of filling, 18,200 sq. ft. of flagging, etc. Wm. A. Tolson, Clk. pro tem., St. and Water Comrs.

NEWARK, N. J.—Bids are asked until April 7 for 11,500 sq. yds. of granite block paving and 1,200 lin. ft. of curbing in Badger Ave. J. C. Mundy, Supt. Bd. Wks.

PLAINFIELD, N. J.—F. J. Hubbard, Borough Engr., North Plainfield, writes us that the question of purchasing a steam road roller is being favorably considered; also that the town is to sample brick to decide upon a permanent pavement.

HAZLETON, PA.—Reports state that the question of laying out a new road up Buck Mountain is being considered. H. Clay Mills, County Surv.

MAHONEY CITY, PA.—Jno. M. Kutz, Chn. St. Com., writes us that bids will soon be asked for about 40,000 sq. yds. of brick paving, estimated cost $80,000. M. D. Bowman, Cy. Engr.

PITTSBURG, PA.—Bids are asked until April 15 for laying a granolithic walk around the highland reservoirs. Edward M. Billow, Dir. Bd. Pub. Wks.

PUNXSUTAWNEY, PA.—T. M. Kurts, Burgess, informs us that in about two months bids will probably be asked for 13,000 sq. yds. of brick paving, estimated cost $24,000. R. S. Van Renseller, Des. Engr.

SHAMOKIN, PA.—F. W. V. Lorenz, Cy. Surv., writes us that there probably will be no paving here before July.

WILKES BARRE, PA.—The street committee has recommended paving in portions of Lincoln, North Washington and Fell Sts. with brick.

WASHINGTON, D. C.—Bids are asked by the district commissioners until April 30 for repairing concrete pavements, as stated in our advertising columns.

WHEELING, W. VA.—Bids are asked until April 9 for furnishing about 500,000 paving brick and setting curbstones. Wm. H. Hornish, Cy. Clk.

ATLANTA, GA.—New bids will be asked by the street committee for paving Auburn Ave. with asphalt.

MACON, GA.—Bids are asked by the street committee until April 12 for about 20,000 sq. yds. of brick or asphalt paving. Bridges Smith, Clk.

TAMPA, FLA.—Bids are asked until May 5 for furnishing 47,000 sq. yds. of vitrified paving brick and 22,000 lin. ft. of granite curbing; also for preparing streets and constructing pavements and setting curbing, as stated in our advertising columns. J. N. Hazlehurst, Ch. Engr.; S. I. Biglow, Clk. Bd. Pub. Wks.

MONTGOMERY, ALA.—The board of revenue awarded Dunn & Sallande Bros. a contract March 28 to extend the Wetumpka gravel road a distance of eight miles.

MERIDIAN, MISS.—Waldo G. Myers, Cy. Engr., writes us that the city voted March 24 to issue $20,000 in bonds for paving, etc.

LOUISVILLE, KY.—Ordinances have been passed by the council for improving portions of about 20 streets.

CINCINNATI, O.—Bids are asked by the board of public works until April 11 for macadamizing, etc., in McCormick Place; until April 13 for brick paving, granite curbing, etc., in Friendship St., and until April 15 for macadamizing, etc., in Chateau Ave. and Bodley Ave. A. P. Butterfield, Clk.

CLEVELAND, O.—Bids are asked by the board of control until April 14 for grading, draining and curbing portions of eight streets, and until April 28 for grading, etc., in Kennard St., brick paving, grading, etc., in 10 streets, and stone paving, etc. in Main St. Geo. R. Warden, Dir. Pub. Wks.

OTTAWA, O.—A contract has been awarded to Geo. Herring & Son at about $30,000 for paving a street one mile in length with brick.

RAVENNA, O.—Bids will soon be asked for paving in Main St. Mayor Cole may be addressed.

BLOOMINGTON, IND.—Bids are asked until April 12 for extending eight county roads. Fred Matthews, County Audr.

BRAZIL, IND.—Thomas Phillips, County Audr., informs us that the following submitted bids March 31 for 21 miles of grading, Dunn & Goar, Forest, Ind., being the lowest at $49,000: Simpson & Baxter, Carbon, Ind.; Morisy & Porter, Paris, Ill.; S. P. Bennett, Paris, Ill.; Jean & Jean, Worthington, Ind.; J. E. Hart, Vevay, Ind.; C. H. Kattman, Brazil, Ind.; De Harrity & Runyon, Alexandria, Ind.; Keegan & Fitzpatrick, Brazil, Ind.

IRVINGTON, IND.—Bids are asked until April 29 for grading and constructing cement sidewalks in portions of four streets, and improving National Ave. from Washington St. to the Brookville Road by grading, curbing, etc. W. C. Smith, Cy. Engr.

LOGANSPORT, IND.—A petition is being circulated by Chas. A. Spry, according to reports, for brick paving in Sycamore St.

BEDFORD, IND.—John B. Malott, County Audr., writes us that the following bids were received March 29 for constructing county roads: Hall & King, Tunnelton, Ind., five divisions of road in Indian Creek Township at $24,158; Shields & De Golyer, Bedford, Ind., seven divisions of road in Shausuck Township, $38,937.

LAFAYETTE, IND.—Bids are asked until May 9 for one mile of curbing and cement sidewalk on Main St. W. K. Eldridge, Cy. Engr.

RICHMOND, IND.—Bids are asked until April 15 for improving the National Road from West Second to West Fifth St. H. L. Weber, Cy. Engr.

GRAND RAPIDS, MICH.—Reports state that Woerden and Prince Sts. will be macadamized at a cost of about $10,000.

CHICAGO, ILL.—Bids are asked until April 13 for paving in eight streets. L. E. McGann, Pres. Bd. Pub. Local Improvements.

ST. PAUL, MINN.—The Alcatraz Co., San Francisco, Cal., submitted the lowest bid March 31 for asphalt paving in portions of the following streets: Laurel Ave., $29,693; Ashland Ave., $21,417; Market St., $9,347; Sixth St., $7,061; Sherburne Ave., $3,996.

TOPEKA, KAN.—Bids are asked by the council for constructing about 14 miles of brick sidewalks. Wm. H. Barnes, Cy. Engr.

CLAY CENTER, NEB.—Bids are asked until April 18 for grading; surety, $250. Geo. Mitchell, County Clk.

OMAHA, NEB.—This city will issue about $65,000 in bonds for certain paving, according to reports.

ST. LOUIS, MO.—The board of public improvements has received estimates to the amount of about $400,000 for the proposed street improvements.——Reports state that Lindell Boulevard will probably be paved with asphalt from Channing Ave. to Kings Highway.

DENVER, COLO.—Eighth Ave. will be paved from Sherman to Lafayette Ave. at an estimated cost of $56,050.

BERKELEY, CAL.—A resolution has been passed to grade and curb Russell St., from Grant St. to Adeline St. C. L. Huggins, Cy. Engr.

TORONTO, ONT.—Bids are asked until April 13 for asphalt, brick, concrete and macadam paving and concrete and brick sidewalks. John Shaw, Mayor, Chn. Bd. Control.——A committee consisting of Messrs. Bostford, Wilson, Galley, Walker and others have been appointed to carry out the proposed asphalt paving between Young St. and the Queen St. subway.

MANUFACTURING PLANTS.

NORTH ATTLEBORO, MASS.—A fire at this place, March 31, damaged the factories of T. J. Smith & Co., manufacturers of jewelry; of H. H. Curtis and of J. B. Mainten & Son, causing a reported loss of $60,000.

HOBOKEN, N. J.—The Hoboken Consumers' Brewing Co., in which Allan S. McDermott, J. Henry Timken and others are said to be interested, will change a local silk factory into a 4-story brewery with a daily capacity of 80,000 barrels; estimated cost, $130,000. Arch., Louis Oberlein, 25 Whitehall St., New York.

HAMBURG, PA.—The Wilhelm bicycle workers at Hamburg, and the St. John's Union Church building were destroyed by fire April 4, causing a loss of $50,000.

SHARON, PA.—The American Steel Casting Co. will soon build an extension to its casting house. Reiter & Conley, of Pittsburg, will furnish the steel work.

WILLIAMSPORT, PA.—Plans are being prepared, according to reports, for a 4-story silk factory to be erected near Erie Ave. Arch., Meade D. Ritter.

LANGHORNE, PA.—We are informed that George C. Dietrich, 939 North 7th St., Philadelphia, Pa., is the contractor for the new factory building to be erected at this place for Frederick Rumpf, manufacturer of knit goods. There is very little iron work in the building. Archs., J. F. Stuckert & Son, 49 North 13th St., Philadelphia.

LYNCHBURG, VA.—William Hurt, of Lynchburg, informs us that the Lynchburg Cotton Mill Co. is not yet quite ready to erect its proposed factory building. Pres., Max Guggenheimer.

WHEELING, W. VA.—Joseph Leiner, of Wheeling, informs us that the contract for the iron work on the new glass factory to be erected in this city by the Eagle Glass Co., has been awarded to the Fort Pitt Iron Works, Pittsburg, Pa.

ROCKINGHAM, N. C.—Reports state that the Pee Dee Mfg. Co. is in the market for a complete cotton mill equipment, including 4,000 spindles, 300 looms, weaving machinery, electric light plant, etc. Pres., W. C., Leak.

ALBERMARLE, N. C.—Reports state that the Cannon Mfg. Co., of Concord, N. C., will erect a 20,000-spindle cotton mill at this place. A 600-HP. engine will be used.

LAFAYETTE, LA.—Plans have been prepared, according to reports, for extensive repairs to be made to the sugar refinery of S. Gumble & Co., of New Orleans, located at Lafayette. New machinery would be required.

LORAIN, O.—Mr. Moxham, Pres. of Johnson Steel Co., of Lorain, is quoted as saying that this company will shortly erect two blast furnaces of a daily capacity of 500 tons each, and that the capacity of its rolling department will also be increased.

SPRINGFIELD, O.—Reports state that the Nolte Brass Co. will erect a 2-story brick building, and that a 40-HP. gas engine will be installed therein.

MINNEAPOLIS, MINN.—The Minneapolis Beet Sugar Co. is said to have awarded the contract for the machinery for its new plant at St. Louis Park to the Kelly Mfg. Co., of Cleveland, O.; reported cost, about $250,000.

TWO RIVERS, WIS.—The F. Eggers Veneer Seating Co. informs us that I. Larenhagen, of Two Rivers, has been awarded the contract for erecting a $7,000 factory building for the manufacture of built-up veneers. All the material for the building has been bought, but an electric lighting plant and a hot air heating system has yet to be arranged for. An 80-HP. Corliss engine will be installed. Arch., C. Tagen, Manitowoc, Wis.

GAS PLANTS.

GENEVA, N. Y.—Bids are asked until April 15 for furnishing Welsbach gas lighting, etc., as stated more fully under Electric Light and Power. W. E. Stubbs, Chn. Com.

CLEVELAND, O.—Bids are asked until April 28 for oil or vapor lighting; surety, $5,000. Geo. R. Warden, Dir. Bd. Pub. Wks.

SAN FRANCISCO, CAL.—The Equitable Gas Co. has awarded a contract to the Rix Compressed Air Machinery Co. to furnish a compressor and engine at $2.525, and for two boilers at $2,125. A contract will soon be let for 150,000 brick for the construction of a converter.

MISCELLANEOUS CONTRACTS.

DREDGING.—Buffalo, N. Y.—Bids are asked until April 20 for dredging in the Buffalo River. R. G. Parsons, Secy. Bd. Pub. Wks.

TELEPHONE SYSTEM.—Mansfield, O.—A franchise has been granted by the council to the Mansfield Telephone Co. to operate a system in this place.

MOORING STONES.—Portland, Me.—Bids are asked until April 29 for furnishing mooring stones. Thos. Perry, U. S. Lighthouse Inspector, Portland.

FIRE ENGINE.—Cleveland, O.—Bids are asked until April 26 for furnishing a first size piston steam fire engine; check, $500. G. L. Heckler, Dir. Fire Service.

TELEPHONE SYSTEM.—Albion, Mich.—The Calhoun County Telephone Co. has been granted a 30-year franchise to maintain a telephone system in this place.

PARK WORK.—Albany, N. Y.—A resolution to improve Beaver Park at a cost of about $25,000 has been recommended. Mayor Van Alstyne may give information.

RETAINING WALL.—Bradford, Pa.—The council has authorized an appropriation of $2,500 for the construction of a stone retaining wall on East Main St.

PIER WORK.—Oakland, Cal.—It is stated that the Southern Pacific Ry. Co. will make extensive improvements to its pier at Oakland Mole. Gen. Mgr., J. Kruttschnitt.

DIKE.—Louisville, Ky.—The board of public works will spend $50,000 in strengthening the "cut off" to prevent the river from breaking through. Chas. F. Grainger, Chn.

RETAINING WALL.—Rockville, Conn.—Bids are asked by the board of public works until April 9 for constructing two retaining walls 272 ft. and 140 ft. long, respectively.

PARK WORK.—Knoxville, Tenn.—The Knoxville Electric St. Ry. Co. is arranging to lay out a park and pleasure ground in this city. Mgr., C. C. Howell; Engr., Wm. A. Park.

TUNNEL EXTENSION.—Rawlins, Wyo.—It is stated that W. C. Henry & Co., the owners of the Victoria tunnel, have let a contract for extending it 180 ft., according to report.

TELEPHONE SYSTEM.—Fort Dodge, Ia.—The council is considering the question of granting a franchise to the Fort Dodge Telephone Co. Z. W. Thomas may be addressed.

MATERIALS.—New York, N.Y.—Bids are asked by the department of parks, the Arsenal, Central Park, Manhattan, until April 14 for furnishing wheelwrights and blacksmiths' materials.

TELEPHONE SYSTEM.—Cochran, Ind.—Reports state that county commissioners have granted a franchise to E. W. Swarthout to construct a telephone line from Cochran to Dillsboro.

STONE DAM.—Spray, N. C.—Bids are asked by the Spray Water Power & Land Co. for constructing a stone dam to contain about 2,500 cu. yds., according to reports. W. R. Walker, Treas.

ALARM BOX FIXTURES, ETC.—New York, N. Y.—Bids are asked until April 20 for repairing 200 fire alarm boxes, and for furnishing 100 keyless doors for boxes. J. J. Scannell, Comr. Fire Dept.

TELEGRAPH LINE.—Montreal, Que.—It is reported that the Canadian Pacific R. R. Telegraph Co. proposes to build a line from Montreal to Vancouver requiring about 450 tons of copper wire.

DRAINAGE CULVERT.—Monterey, Cal.—Reports state that a contract has been awarded to Harry Joseph at $1,317 for constructing a drainage culvert 424 ft. long with an automatic head gate.

DREDGING.—Connecticut River, Conn.—Bids are asked until May 6 for dredging in the Connecticut River, Conn., as stated in our advertising columns. Maj. Smith S. Leach, U. S. Engr., New London, Conn.

REPAIRING DREDGE.—Charleston, S. C.—Bids are asked until April 30 for docking and repairing the United States dredge, as stated in our advertising columns. E. H. Ruffner, U. S. Engr., Charleston.

WHARF.—San Francisco, Cal.—Darby, Laydon & Co. have been awarded a contract by the Equitable Gas Co. at $3,800 for constructing a wharf 275 ft. long and 60 ft. wide at the Shelby Smelting Works.

SUPPLIES.—New York, N. Y.—Bids are asked until April 11 for furnishing engineers' and steamer supplies, etc., as may be required during the year. F. J. Lantry, Comr. Correction, 148 East 20th St., Manhattan.

TELEGRAPH LINE.—Fort Myer, Va.—Bids are asked until April 7 for constructing a telegraph line from Fort Myer to Sheridan Point, a distance of 16 miles. A. W. Greeley, U. S. Signal Officer, Washington, D. C.

STONE.—Cleveland, O.—Bids are asked until April 29 for furnishing the stone required in the construction of the foundation for the east breakwater extension in Cleveland Harbor. Col. Jared A. Smith, U. S. Engr., 185 Euclid Ave.

TELEPHONE CONDUITS.—Birmingham, Ala.—An ordinance has been passed by the council authorizing all telephone wires between Fourth and Powell Aves. and 18th and 21st Sts. to be laid in conduits before Dec. 31. A. J. Camp, Clk.

CHANNEL WORK.—Detroit, Mich.—Bids are asked until April 21 for completing improvements of channel connecting the waters of the Great Lakes, as stated in our advertising columns. Lieut.-Col. G. J. Lydecker, U. S. Engr., Telephone Bldg., Detroit.

FIRE ENGINES, HOSE WAGONS, ETC.—New York, N. Y.—Bids are asked until April 20 for furnishing two fourth size steam fire engines, two third size hook and ladder trucks, and two first size hose wagons. J. J. Scannell, Comr., 157 E. 67th St., Manhattan.

CANAL WORK.—Chicago, Ill.—It is reported that Heldmaier & Neu, Chicago, have been awarded the contract by the Sanitary District Trustees for constructing a crib at Joliet parallel with the shore of the river for 600 ft., at $40,000. It will provide for a division of the water of the Desplaines River and a route for the canal.

TELEPHONE EXTENSION.—Nebraska City, Neb.—Press reports state that the Interstate Telephone Co. of St. Joseph, Mo., has completed arrangements to extend its line to this city. The company proposes to extend its line to Omaha, Lincoln and the principal cities in southwestern Nebraska.

FIRE TUG.—Chicago, Ill.—The following bids were received March 31 by Chief Swenie, of the fire department, for constructing a steel fire tug:

Racine Boat Co., Racine, Wis.	$69,000
Craig Shipbuilding Co., Toledo, O.	48,950
Globe Iron Works, Cleveland, O.	57,882
Chicago Shipbuilding Co.	68,500

SURVEYS.—Cheyenne, Wyo.—Press reports state that Surveyor-General Hanson, on March 29, called for bids for surveying 625 square miles of Wyoming lands along the Continental divide near the heads of Wind River and Buffalo Fork of the Snake River. Bids are also asked for the surveys of several townships in the Brush Creek district along the Medicine Bow range of mountains in Southern Wyoming. The surveys will require the expenditure of $25,000.

COFFERDAMS, MASONRY, STEEL GIRDERS, ETC.—Chicago, Ill.—Bids are asked until June 1 for substructure auxiliary work, materials, and for metal superstructure for by-pass along Chicago River in Chicago. Contracts for this work will be awarded under two heads or divisions: The construction of cofferdams, excavation, foundation work, masonry of concrete, stone or brick, and pile or timber work. Superstructure of iron and steel girders, floor beams, etc. Jas. Reddick, Clk. Bd. Sanitary Trustees, Security Bldg.

REMOVING WRECK.—Portland, Me.—The following bids were received March 31 for removing the wreck from Deer Island Thoroughfare, as advertised in Engineering News. Maj. R. L. Hoxie, U. S. Engineer, Portland:

John F. Hamilton, Portland, Me.	$500
John L. Goss, Stonington, Me.	945
Scott Geyer, Stonington, Me	1,000
P. H. Doyen, Knightsville, Me.	490
D. A. Johnston, New York	1,200
W. H. Simmons, Rockland, Me.	597
W. S. White, Rockland, Me.	475
John L. Mill, Camden, N. J.	1,147
J. S. Rogers, Plattsburgh, N. Y.	869
Solon S. Andrews, Gorham, Me.	485
Alfred Sorensen, Boston, Mass.	1,200
W. H. Virden, Lewes, Del	890

METAL WORK.—Wade Point, N. C.—Lt.-Col. W. A. Jones, U. S. Lighthouse Engr., Post Office Bldg., Baltimore, informs us that the following bids were received March 31 for the metal work in the construction of the Wade Point lighthouse, as advertised in Engineering News:

Allentown Rolling Mills, Allentown, Pa.	$3,490
Bartlett, Hayward & Co., Baltimore, Md.	4,948
Atlanta Machine Works, Atanta, Ga.	3,815
Chamblin & Scott, Richmond, Va.	3,074
Weimer Machine Works Co., Lebanon, Pa.	3,635
W. D. Haven, Long Branch, N. J.	5,750
Russel Wheel & Foundry Co., Detroit, Mich.	3,280
Lombard Iron Works & Supply Co., Augusta, Ga.	3,739
North Penn Iron Co., Philadelphia, Pa.	3,550
West Side Foundry Co., Troy, N. Y.	4,228
Tacony Iron & Metal Co., Philadelphia, Pa.	4,383
New Jersey Steel & Iron Co., Trenton, N. J.	3,590
John P. McGuire, Cleveland, O.	2,900
Emil Severin, Aurora, Ind.	4,921

CONTRACT PRICES.

REPAIRING PIER.—Portage Lake, Mich.—We are informed that the following bids were received by Capt. C. McD. Townsend, U. S. Engr., 57 Park St., Grand Rapids, Mich., March 21, for repairing the government pier at Portage Lake, as advertised in Engineering News:

Bidder.	Timber, 92,-662 ft. B.M.	Drift bolts, 15,170 lbs.	Screw bolts, 4,876 lbs.	Angle irons, 8,840 lbs.	Stone fill'g, 500 cords.	Total.
W. Brownrigg, Manistee, Mich.	$18.75	1¾	2	2	$5.35	$4,952
N. J. Gaylord, Ludington, Mich	19.00	2¼	2¼	2¼	5.10	4,961
Z. S. Beauvais, Muskegon, Mich	19.50	2.7	2.7	2.7	5.40	5.287
R. B. Rice, Muskegon, Mich.	20.00	2	2½	2½	5.75	5 375
Wm. McIvor, Marseilles, Ill.	20.25	2¼	2¼	2¼	6.25	5,651
A. Green, Green Bay, Mich.	21.00	2	3	5	5.65	5,663
Lynch & Weimer, Ludington.	21.50	2½	2⅝	3	6.39	5,968
Love & West, Muskegon, Mich	22.00	2½	2½	2½	8.00	6,761

REPAIRING PIER.—Muskegon, Mich.—Capt. C. McD. Townsend, U. S. Engr., Grand Rapids, received the following bids March 21 for repairing the government pier at Muskegon, as advertised in Engineering News:

Quantities.		Adolph Green, Green Bay, Mich.	J. M. Allmendinger, Benton Harbor,	Love & West, Muskegon, Mich.	Wm. McIvor, Marseilles, Ill.
White oak piles.	2,108 lin. ft.	$0.29	$0.30	$0.30	$0.32
Timber	2,750 ft. B.M.	36.00	32.00	35.00	36.50
Pine timber	5,940 " "	21.00	20.00	21.00	28.50
Pink, sht pilg	57,798 " "	26.50	30.00	36.00	35.50
Plank, deck'g	11,904 " "	20.00	20.00	19.00	18.25
Drift bolts	472 lbs.	.....	.02	.025	.025
Spikes	1,595 "	.025	.0225	.025	.025
Screw bolts	1,850 "	.03	.03	.025	.03
Tie rods	3,500 "	.025	.03	.025	.04
Total		$2,797	$3,017	$3,346	$3,460

SPECIAL CASTINGS.—Boston, Mass.—We are informed that the following bids were received, March 23, by the Metropolitan Water Board, Distribution Department, for furnishing special castings; contract awarded The McNeal Pipe & Foundry Co.; Warren Foundry & Machine Co.'s bid excepted 60-in. castings; Dexter Brackett, Engr. Distribution Dept.; John N. Ferguson, Asst. Engr.:

Bidder.	—Tons— 200.	35.	Total.
McNeal Pipe & Fdry Co., Burlington, N.J.	$34	$57	$8,795
Camden Iron Wks, Philadelphia, Pa.	37	45	8,975
Warren Fdry & Mach. Co., New York, N. Y.	35	86	10,010
Builders Iron Fdry, Providence, R. I.	47	52	11,220

PAVING.—Irvington, Ind.—We are informed that the following bids were received March 28 for paving in certain streets; all bidders excepting John Moore of Irvington, and Porter & Hadley of Tipton, Ind., were from Indianapolis:

Bidder.	—Brick.— Central Ave. to city line.	Wallace to Central Ave.	—Macadam.— Central to Wallace Ave.	Wallace to Central Ave.
Geo. W. McCray & Co.	$4.07	$4.07	$2.49	$3.03
John Moore	3.25	3.56	2.28	2.52
Porter & Hadley	....	3.74	....	....
Ind. Bermudez Asp. Co.	4.65*	4.43*	....	....
Daniel Foley	3.95	3.75	2.50	2.45
Hoosier Construction Co.	3.87	3.79	....	....
West'n Pav'g & Sup'ly Co	....	4.63*	....	....
Capital Pvg & Const'n Co	4.04 to 4.15	4.14 to 4.20	....	....

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*For asphalt.

PIPE SEWER.—Waterbury, Conn.—We are informed that the following bids were received April 1 for constructing 8,000 ft. of pipe sewer:

Quantities.		T. M. Lesher & Son, Easton, Pa.	D. B. Pierce Jr., Co., Bridgeport, Conn.	E. McManus, Waterbury, Conn.
15-in. pipe	1,012 ft.	$1.37	$2.49	$3.16
12-in. "	1,079 "	1.06	1.25	.75
9-in. "	600 "	.72	.85	.85
8-in. "	2,900 "	.71	1.04	.65
Manholes each	32	37.00	41.00	45.00
Rock excavation		4.00	4.00	4.00
Total, exclusive of rock		$6,205	$8,707	$7,842

PIPE SEWERS.—Albany, N. Y.—The following bids were received by the board of contract, April 4, for building a pipe sewer in McCarty Ave.; John Doyle was awarded the contract:

Quantities.		John Doyle.	Pat'k H. Reilly.
15-in. vit. pipe, extra heavy	1,540 ft.	$0.85	$0.91
6-in. " "	416 "	.10	.10
15-in. Y branches,	132 each	2.45	2.80
Manholes	4 "	38.00	40.00
6-in. bends	26 each	.35	.30
Lateral trenches	416 lin. ft.	.20	.30
Total		$1,918	$2,105

BRICK PAVING.—Saginaw, Mich.—We are informed that the following bids were received April 1 for brick paving; all local bidders; H. E. Terry, Cy. Engr.:

Quantities.		John C. Schulz.	Scanlan & Crowley.	John C. Davies.
Excavation	2,155 cu. yds.	$0.08	$0.12	$0.12
Brick paving	6,685 sq. yds.	1.00	1.00	.995
Tile drain	184 lin. rods	.65	.60	.55
Curb stone	100 lin. ft.	.45	.45	.50
" " reset	3,010 " "	.04	.04	.07

PAVING.—Schenectady, N. Y.—We are informed that the following bids were received by the council, March 29, for paving Albany St. with Catskill brick; all local bidders; contract awarded John Twomey; L. B. Sebring, Cy. Engr.:

Bidder.	A. G. Veeder.	John Twomey.	Benj. Van Vranken.
Brick paving, sq. yd.	$1.68	$1.58	$1.56¾
Curbing, a lin. ft.	.44	.41	.45
Water taps, each.	7.00	7.00	8.00
Sewer connections, lin. ft.	.40	.95	.80
Lead pipe, ¾-in., lin. ft.	.65	1.00	.80
Total	$24,562	$23,177	$23,237

SEWAGE PRECIPITATION TANKS.—Providence, R. I.—We are informed that the following bids were received March 24 for constructing sewage precipitation tanks, as advertised in Engineering News; Robt. E. Smith, Comr. Pub. Wrks.:

CEMENT.—Minneapolis, Minn.—The following bids were received March 25 for furnishing cement, sacks 10 cts. each and credit given when returned:

Items.	Menomonie Hydraulic P. B. Co., Menomonie Wis.	Union Ry. Storage Co., Minneapolis, Minn.
Mankato—Cloth, 2 to bbl., per bbl.	$0.85	$0.85
" Paper, 3 to bbl., "	.90	.87
" Per barrel	1.15	1.08
Louisville—Cloth, 2 to bbl., per bbl.	.95	.95
" Paper, 3 to bbl., "	...	.99
" Per barrel	...	1.18

VALVES.—Evansville, Ind.—The Rensselaer Mfg. Co., Troy N. Y., is reported to have been awarded the contract for furnishing a 20-in. valve at $120 and six 4-in. valves at $6.50 each.

LAYING WATER PIPE.—Milwaukee, Wis.—We are informed that the following bids were received April 2 for laying water pipe; all local bidders:

Bidder.	Pipe, a lin. ft. 6-in.	8-in.	12-in.
C. J. Crilly	$0.24	$0.29	$0.3[illegible]
Geo. E. Zimmermann	.23	.28	.41
F. H. Nakielski	.24	.28	.4[illegible]
Herman Hohensee	.23	.33	.47
Vogt Fuel & Const'n Co.	.23	.29	.35
Charles Forrestal	.23	.28	.38
R. J. Hickey	.209	.25½	.36
John H. Donahue	.22	.28	.38
A. Kellner.	.23¼	.28¾	.42

SEWER BRICK.—Minneapolis, Minn.—The following bids were received March 25 for furnishing 1,000,000 sewer brick: Menomonie (Wis.) Hydraulic Pressed Brick Co., $8.50 a 1,000; Alaska sand mold, $8.75 and $8.85 a 1,000; Northwest Brick & F. P. Co., Minneapolis, sand mold, $8.25 a 1,000, wire cut, $7.00; Swan G. Johnson, Minneapolis, sand mold, $8.20, feather edge, $9.85.

PAVING.—Binghamton, N. Y.—B. W. Mosher, Cy. Clk., informs us that the following bids were received Marsh 23 for paving on 6 ins. hydraulic cement concrete foundation, as advertised in Engineering News:

Bidder.	Guarantee, 5 years.	10 years.
[1]A. S. Webb, Syracuse, N. Y.	$1.90	$1.95
[2]Andrew Douglas, Binghamton, N. Y.	1.79	1.89
*[1]J. McCloud & Co., Williamsport, Pa.	1.98 large. 2.04 small.	....
[2]A. D. Osborn, Binghamton, N. Y.	1.90	1.96
[3]Eugene Fee, Olean, N. Y.	1.83	1.93
[3]Utica Paving Co., Utica, N. Y.	1.85	1.85

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*10 cts. additional a cu. yd. for 10-year guarantee. [1]N. Y. Brick & Paving Co.'s vitrified brick; [2]Preston brick; [3]Alcatraz asphalt; McCloud & Co., Preston brick, $1.83 a yd.; E. Fee, N. Y. Brick & Paving Co.'s brick, $2.03 and $2.13 a yd. for 5 and 10-year guarantee, respectively.

WATER PIPE.—Milwaukee, Wis.—We are informed that the board of public works received the following bids April 4 for furnishing cast-iron water pipe; contracts awarded D. Long & Co. for 12, 8, 6 and 4-in. pipe, and Addyston Pipe & Steel Co. for 3-in. pipe:

Bidder.	Pipe. 8 and 12-in., 200 tons.	6-in., 750 tons.	4-in., 35 tons.	3-in., 15 tons.
D. Long & Co., Louisville, Ky.	$15.44	$15.44	$15.44	$20.00
R. D. Wood & Co., Philadelphia.	18.50	18.50	19.25	20.50
Addyston P. & St'l Co, Cincinnati	15.78	15.78	15.78	17.78
So. Pittsburg (Tenn.) Pipe Wrks	16.20	17.70	17.70	21.70

CEMENT GRAVEL.—Charleston, S.C.—The following bids were received, March 12, for furnishing cement gravel to be used for roadways:

	A cu. yd
Wylly, Wilson & Co., Ellenton, S. C.	$1.15
W. F. Maguire, Charleston, S. C.	$1.25 and 1.20
Augusta Gravel Co., Augusta, Ga.	1.20
E. Willis, Charleston, S. C.	$1.13 and 1.19

Bids received at Providence, R. I., March 24, for Constructing Sewage Precipitation Tanks.

Bidder.	Earth excavation, 41,000 cu. yds.	Concrete, Portland cem., 20,000 cu. yds.	Rubble masonry, 300 cu. yds.	Brick masonry, Portland cement, 200 cu. yds.	Mill roofing, 200 sq. yds.	Asphalt coating, 500 sq. yds.	Dim. stone masonry, 10 cu. yds.	Drain pipe, 1,500 lin. ft.	Lumber in foundation, 1,000 ft. B.M.	Gravel backfilling, 100 cu. yds.	No. of days required.	Total.
Edward W. Everson	$0.45	$2.85	$3.75	$4.00	$0.15	$0.25	$10.00	$0.25	$30.00	$1.00	200	$80,135
Frank Slavin	.39	3.10	4.00	5.00	.50	.75	6.00	.25	18.00	.35	125	82,403
Frederick E. Shaw	.30	3.35	3.35	7.00	.50	.50	7.00	.20	25.00	2.50	150	84,200
John W. Hoffman & Co.	.40	3.19	3.19	3.19	1.25	.75	3.50	.30	30.00	.25	200	84,960
McGuire & Hall.	.45	3.21	5.75	4.00	.01	.15	10.00	.25	35.00	1.50	200	87,912
W. A. Chapman & Co.	.371	3.57	3.50	6.00	1.00	.10	6.00	.15	25.00	1.25	200	91,546
John S. Lane & Son	.35	3.70	6.00	6.00	.50	.20	6.00	.25	16.00	.35	200	94,036
T. M. Lesher & Son.	.40	3.70	3.00	2.30	.10	.10	2.50	.15	20.00	.50	200	94,150
Long & Little	.43	3.70	4.00	5.00	.20	.10	4.00	.25	35.00	1.50	150	96,020
Columbus Construction Co.	.60	3.33	8.00	5.00	.60	.40	20.00	.25	30.00	1.50	180	97,475
Warren-Scharf Asphalt Co.	.28	4.19	4.65	4.30	.55	.05	2.50	.125	22.50	.60	200	99,965
R. A. Malone	.40	3.90	4.00	10.00	.15	.50	25.00	.20	23.00	.75	150	100,028
D. Cuozzo & Co.	.48	4.00	4.00	10.00	.50	.30	5.00	.25	30.00	1.00	250	106,185
H. P. Nawn	.48	3.99	5.00	6.50	.50	.50	3.00	.25	30.00	.50	350	106,615
Boston Paving Co.	.35	4.50	4.00	5.00	.45	.25	3.00	.15	25.00	1.50	150	108,695
Douglass Brothers	.40	4.60	5.00	6.00	1.00	.75	8.00	.50	22.00	.50	250	115,077
James J. Newman	.53	4.50	5.20	5.25	.30	.25	3.50	.25	30.00	.80	400	119,045
J. W. Bishop & Co.	.59	4.62	5.00	10.00	1.25	.50	10.00	.25	30.00	.48	320	124,343
Samuel W. Frescoln	.74	4.95	5.00	6.00	1.00	1.00	10.00	.20	40.00	2.00	200	135,380
Moulton & O'Mahoney	.50	5.75	5.00	10.00	2.00	1.00	4.00	.75	30.00	1.50	225	143,475
Franklin A. Snow	.40	6.25	7.00	7.00	.75	.75	50.00	.50	40.00	2.00	175	148,665
Frank Pidgeon	.45	6.95	5.00	10.00	.50	2.90	18.00	.60	25.00	.60	300	166,665

ASPHALT PAVING.—Minneapolis, Minn.—The following bids were received March 25 for 48,516 sq. yds. of asphalt paving; (1) Assyrian Asphalt Paving Co., Chicago, Ill.; (2) Ayers Asphalt Paving Co., Zanesville, O.; (3) Warren-Scharf Asphalt Paving Co., New York; F. W. Cappelen, Cy. Engr.; E. R. Dutton, St. Engr.:

	1.	2.	3.
10-year guarantee[1]	$2.49	$2.58	$2.68
10% retention	2.43	2.49	2.65
5-year guarantee[1]	2.16	2.23	2.02
10% retention	2.10	2.14	2.00
2-year guarantee, 10% retent'n	1.95	1.92	1.74
Maintenance:			
10 years, a sq. yd. a year.	.12	.10	.15
5 " " "	.08	.08	.10½
2 " " "	.06	.06	.09½
Gutters, a sq.yd.: Brick,[2] 2 ft.	1.98	2.30	2.14
Sandstone[2]	3.07	2.94	3.38
Granite toothing, a sq. yd.	3.03	2.50	3.45

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[1]10% retention and 15% bond. [2]Same bid for 3 ft.

DIKE.—Clinton, Mass.—The following bids were received March 23 by the Metropolitan Water Board, Boston, for building a dike, part of section 4 of the Washusett Reservoir, Clinton:

Bidder.	18,600 cu. yds.
Neill, Devine & Co., Clinton, Mass. (accepted)	$0.17⅞
Newell & Snowling Const'n Co, Uxbridge, Mass.	.179
Auguste Saucier, So. Framingham, Mass.	.18
David Hall, Boston, Mass.	.18⅜
Cashman Bros., Newburyport, Mass.	.19
Cenedella Bros., Boston, Mass.	.19½
John Donovan, Southborough, Mass.	.21
Murphy Bros., Clinton, Mass.	.21½
Long & Little, Leominster, Mass.	.23½
T. W. Kinser & Co., Waltham, Mass.	.25
James Langin, So. Lancaster, Mass.	.30

REPAIRING PIER.—Charlevoix, Mich.—The following bids were received, March 30, by Capt. C. McD. Townsend, U. S. Engr., Grand Rapids, Mich., for repairing a pier, as advertised in Engineering News:

Bids Received at Charlevoix, Mich., March 30, for Repairs to a Pier.

Bidder.	Old work cut down, 723 lin. ft.	White oak round piles, 7,250 ft.	White oak timber, 7,920 ft. B. M.	White pine timber, 121,734 ft. B.M.	W. p. plank for decking, 6,480 ft. B.M.	Drift bolts, 16,327 lbs.	Screw bolts, 8,114 lbs.	Tie rods, 6,461 lbs.	Spikes, 293 lbs.	Angle irons, 11,830 lbs.	Total.
Robert B. Rice, Muskegon, Mich.	$0.25	$0.26	$35.00	$19.00	$15.00	$0.02	$0.02½	$0.02½	$0.03	$0.02½	$5,749
Love & West, Muskegon, Mich.	.65	.28	32.00	19.00	17.00	.02	.02	.02	.02	.02	6,037
Jos. A. Beauvais, Charlevoix, Mich.	.95	.25	28.50	19.75	19.75	.02	.02¼	.02½	.02½	.02¼	6,201
Nelson J. Gaylord, Ludington, Mich.	.30	.32	35.00	20.00	18.00	.02	.02½	.02½	.02	.02	6,226
Adolph Green, Green Bay, Wis.	1.20	.28	35.00	19.50	16.95	.02	.02½	.02½	.02	.03	6,710
P. W. Galloway, Racine, Wis.	1.00	.28	35.00	19.00	15.00	.02½	.03	.03	.02	.03	6,647
Lynch & Weimer, Ludington, Mich.	1.25	.31	40.00	22.00	18.25	.02½	.02¾	.02¾	.03	.03	7,444
Lipsett & Gregg, Sault Ste. Marie, Mich.	6.25	.52	50.00	19.75	19.00	.03	.03	.03	.03	.03	12,503

CRUSHED STONE.—Poughkeepsie, N. Y.—Robt. H. Cruthers has been awarded the contract, at $1.54 a cu. yd., for furnishing crushed stone to the department of public works.

DREDGING.—Manitowoc, Wis.—H. Truman is reported to have been awarded the contract by the council for about 200,000 cu. yds. of dredging in the Manitowoc River at 7½ cts. a cu. yd.

PIPE SEWERS.—Boston, Mass.—The following bids were received by the Metropolitan Sewerage Commission, March 26, for constructing pipe sewers in section No. 53, Arlington and Lexington:

Bids Received at Boston, Mass., March 26, for Constructing Pipe Sewers in Section No. 53.

Bidder.	Excav't'n and refill. 18-in. pipe sewer, 650 lin. ft.	15-in. pipe sewer, 3,850 lin. ft.	Masonry. Brick. American, 90 cu.yds.	Portland, 10 cu.yds.	Concrete. American, 500 cu.yds.	Portland, 60 cu.yds.	Spruce lumber in place, 4,000 ft.B.M.	Spruce piles drvn, 1,500 lin.ft.	Rock excavation, 2,000 cu.yds.	Total.
P. & F. E. McCarthy, Boston	$6.76	$4.62	$13.00	$15.00	$6.07	$9.00	$26.00	$0.25	$3.50	$34,55[illegible]
George W. Judd, Boston	3.25	2.90	12.50	14.00	5.25	7.00	35.00	.13	5.50	28,92[illegible]
Frank L. Allen, Worcester, Mass.	2.60	2.50	14.00	16.00	6.00	7.50	40.00	.25	5.00	26,72[illegible]
H. A. Hanscom & Co., West Medford, Mass.	1.95	1.74	13.50	15.00	6.00	7.50	30.00	.20	5.00	23,2[illegible]2
Bruno Salomone, East Boston, Mass.	1.85	1.70	13.75	18.00	5.00	6.00	30.00	1.00	4.75	23,145
Michael Russo, Boston, Mass.	1.85	1.35	13.00	14.50	5.75	7.75	30.00	.25	5.75	23,05[illegible]
McCusker Bros., Waltham, Mass.	2.30	2.15	13.00	15.00	6.00	8.00	20.00	.20	4.00	22,95[illegible]
A. W. Bryne Const'n Co., W. Medford, Mass.	2.44	2.21	14.00	16.00	5.00	6.00	40.00	.23	3.50	21,88[illegible]
T. H. & G. M. Bryne, Hyde Park, Mass.	1.65	1.30	12.00	14.00	6.00	7.25	35.00	.35	5.00	21,2[illegible]8
Long & Little, Leominster, Mass.	1.80	1.60	14.00	17.00	4.50	7.00	35.00	.25	3.50	18,9[illegible]5
S. W. Frescoln, Reading, Pa.	2.55	1.10	12.00	15.00	5.50	7.50	25.00	.12	4.00	18,6[illegible]

PAVING.—Minneapolis, Minn.—The following bids were received March 25 for 13,140 sq. yds. of granite paving in alleys: Canney Bros., Minneapolis, $1.89 to $1.91 a sq. yd.; Thatcher & Burk, Chicago, $1.91 a sq. yd. The following were also received for 21.488 yds. of sandstone paving: J. B. Canney, Minneapolis, $1.80 in streets and $1.82 a sq. yd. in alleys; Fielding & Shipley, St. Paul, $1,725 in streets and $1,705 in alleys; Thatcher & Burk, Chicago, $1.83 in streets and $1.86 in alleys.

DITCH.—Princeton, Ind.—We are informed that the following bids were received, March 22, for the construction of the V. P. Bozeman ditch, located in Posey and Gibson counties, Ind.; estimated quantities, 235,000 cu. yds.; E. E. Watts, County Surv.:

	Cts. a cu yd.
J. E. Rodgers, Chicago, Ill.	9
Bodett & Barr, Chicago, Ill.	8 & 9
J. O. Rood, Chicago, Ill.	7.94
J. S. Spiker & Co., Vincennes, Ind.	7.9
Brumbraugh & Bodett, Elkhart, Ind.	7⅞
L. T. Harding & Son, La Porte, Ind.	7¾
Canal Construction Co., Chicago, Ill.	7.7
A. V. Wills & Sons, Winnaurac, Ind.	7⅝
R. A. Brown & Co., Washington, Ind.	7⅝
Pollard, Goff & Co., Champaign, Ill. (accepted)	7¼

MACADAMIZING.—Eatontown, N. J.—We are informed that the following bids were received April 2 for macadamizing 3½ miles of road, as advertised in Engineering News. Engr., W. H. De Nyse, Long Branch, N. J.:

Bidder.	For 27,590 sq. yds. of 6-in. macadam complete.	6-in. cobblestone, gutters, 978 sq. yds.	6-in. rubble stone, gutters, 978 sq. yds.
Rehill & Walton, Somerville, N. J.	$16,389	$0.40	$0.50
[1]B. M. & J. F. Shanley Co.	18,757	.80	.80
M. R. Van Keuren, Jersey City	19,091	.40	.45
Jno. F. Shaughnessy	19,929	.63	.63
C. H. Lutjens	22,255	.50	.50
Stone & Thurston, 220 B'way, N.Y	22,303	.80	.80
Thos. R. McCann, New York	22,835	.35	.50
Chapman & Fitch, 253 B'way, N.Y	27,239	.50	.50

[1]26 Exchange Pl., Jersey City.

REPAIRING PIER.—Frankfort, Mich.—Capt. C. McD. Townsend, U. S. Engr., received the following lowest bid for repairing the government pier at this place, as advertised in Engineering News: Robt. B. Rice, Muskegon, Mich., for old work cut down, 283 lin. ft., $1.15; white oak piles, 2,272 lin. ft., 31½cts.; white oak timber, 3,100 lin. ft., $40; white pine timber, 5,882 ft. B. M., $20; white pine plank for decking, 2,592 ft. B. M., $15; drift bolts, 6,853 lbs., 2 cts.; screw bolts, 3,342 lbs., 2½ cts.; tie rods, 3,412 lbs., 3 cts.; spikes, 104 lbs., 3 cts.; angle irons, 5,616 lbs., 2½ cts.; total, $2,847.

SEWER PIPE, ETC.—Charleston, S. C.—J. B. Keckeley, Supt. Sts., informs us that the following bids were received March 12 for furnishing sewer pipe, etc., and the contract awarded J. V. Brandt; both local bidders:

Items.	J. V. Brandt.	Southeastern Lime & C. Co.
8-in. pipe	$0.08½	$0.08⅝
9-in. "	...	.09¼
10-in. "	.12	.12¼
12-in. "	.16	.16¾
15-in. "	.25	.23
18-in. "	.34	.33
8-in. Y's and T's	.38	.40
9-in. "	...	.50
10-in. "	.55	.60
12-in. "	.75	.70
15-in. "	1.15	1.15
18-in. "	1.50	1.60

PIPE, ETC.—Elgin, Ill.—The Addyston Pipe & Steel Co., Cincinnati, O., is reported to have been awarded the contract for furnishing 10,000 ft. of 4, 6 and 8-in. cast-iron water pipe at $15.85 a ton, and for special castings at $39 a ton.

PIPE SEWERS.—Cincinnati, O.—The following bids were received March 15 for constructing a pipe sewer in McMillan St.; contract awarded Conrad Henkel; Aug. Herrmann, Pres.:

Quantities.		McCarthy Bros., 569 E. 8th St.	C. Henkel. Daniels St.
12-in. pipe sewer	625 lin. ft.	$2.50	$2.00
Ys on 12-in pipe	50 each	.01	.70
Oval manholes	3 "	20.00	40.00
Palmer outlets	2 "	25.00	50.00
Round manhole	1	25.00	45.00
Broken stone	60 cu. yds.	.01	1.30
Gravel	15 " "	.01	1.25
Total		$1,699	$1,647

CURB.—Minneapolis, Minn.—J. B. Canney submitted the lowest bid March 25 for furnishing granite curbing at 59 cts. for straight and radius. Canney also submitted the lowest bid for artificial combined curb and gutter at 47 cts. for bank sand and 59 cts. for crushed granite. The Minnesota Sandstone Co., Minneapolis, submitted the lowest bid for furnishing Kettle River sandstone curb at 58 cts. for 6 x 20 ins. and 52 cts. for 5 x 20 ins.

PAVING BLOCKS.—Salem, Mass.—It is stated that O'Rourke Bros., Salem, have been awarded the contract for furnishing 211,000 granite paving blocks at $38 a 1,000. Last year the contract was let at $36.49 a 1,000.

DREDGING.—Buffalo, N. Y.—The following lowest bids have been recommended for acceptance for dredging: Buffalo River, Buffalo Dredging Co., 18 cts. a cu. yd.; Buffalo Harbor, Blackwell, Canal and Peck slip, Hingston & Woods, Buffalo, 17.75 cts. a cu. yd. R. G. Parsons, Secy. Bd. Pub. Wks.

CEMENT.—Portland, Me.—We are informed that the following bids were received March 31 by Maj. R. L. Hoxie, U. S. Engr., Portland, for furnishing 6,000 bbls. of Portland, 3,000 bbls. of natural cement, as advertised in Engineering News: Natural cement, New York & Rosendale Cement Co., New York, 80 cts. bbl. of 300 lbs.; Lawrenceville Cement Co., 93 cts. a bbl. of 300 lbs.; Portlant cement, Standard Silica Cement Co., New York, 52 3-5 cts. a bbl. of 100 lbs.; Frank H. Sloan, Baltimore, Md., 53½ cts; The Kelley Island Lime & Transport Co., Cleveland, O., 61 cts.; Manhattan Cement Co., New York, N. Y., $2.30 a bbl. of 375 lbs.; Atlas Cement Co., New York, 56 cts., and Charles W. Hall, New York, 64 2-5 cts.

SPECIAL CASTINGS.—Boston, Mass.—W. E. Swan, Ch. Clk. and Secy. to water board, informs us that the following bids were received March 28 for furnishing special castings: (1) 9,500 lbs.; (2) 33,000 lbs.; (3) 55,000 lbs.

	1.	2.	3.
William Curley, East Boston	19 cts.	17 cts.	14 cts.
John McCafferty & Co., Boston...	17¼"	16 "	13 "

BRICK PAVING.—Minneapolis, Minn.—The following bids were received March 25 for 61,656 sq. yds. of brick paving on 6 ins. concrete foundation; E. R. Dutton, St. Engr.; F. W. Cappelen, Cy. Engr.:

Bids Received at Minneapolis, Minn., March 25, for Brick Paving.

Bidder.	10-yr. guaranty, 10% retention, —15% bond.—		10-yr. guarantee, 10% re—tention.—		5-yr. guaranty, 10% retention, —15% bond.—		5-year guaranty, 10% re—tention.—		2-year guaranty, 10% re—tention.—	
	Sand filler.	Asphalt filler.	Sand filler.	Asphalt filler.	Sand filler.	Asphalt filler.	Sand filler.	Asphalt filler.	Sand filler.	Asphalt filler.
A. E. Rutledge & Co., Rockford, Ill	$1.715	$1.845	$1.675	$1.805	$1.665	$1.795	$1.625	$1.755	$1.57	$1.70[1]
	1.675	1.805	1.635	1.765	1.625	1.755	1.585	1.715	1.53	1.67[2]
	1.73	1.86	1.69	1.82	1.68	1.81	1.64	1.77	1.585	1.715[3]
Fielding & Shipley, St. Paul, Minn.	1.72	1.84	1.71	1.83	1.68	1.79	1.67	1.78	1.68	1.76[4]
Smith, Moss & Brown, Chicago..	1.93	2.08	1.88	2.03	1.77	1.92	1.72	1.87	1.59	1.74[5]
	1.98	2.13	1.93	2.08	1.82	1.97	1.77	1.92	1.64	1.79[4]
Thatcher & Burk, Chicago........	1.78	1.85	1.76	1.83	1.71	1.79	1.69	1.77	1.63	1.73[1]
	1.81	1.87	1.79	1.86	1.74	1.82	1.72	1.80	1.66	1.76[3]
J. B. Conway, Minneapolis, Minn.	1.95	2.00	1.74	1.84	1.95	2.00	1.74	1.84	1.68	1.78[1]
	....	....	1.71	1.81	....	....	1.71	1.81	1.65	1.75[2]
	1.98	2.05	1.75	1.85	1.95	2.00	1.75	1.85	1.68	1.78[3]

[1] Streets. [2] Nicollet Ave. [3] Alleys. [4] All. [5] All except Hawthorne Ave. and alleys.

GRANITE BLOCKS.—Charleston, S. C.—The Winslow Granite Co., Charleston, has been awarded the contract for furnishing granite paving blocks at $51 a 1,000.

BRIDGE MASONRY.—Allentown, Pa.—The county commissioners are reported to have awarded the contract for the masonry work for the Slatington bridge to Levi Horn & Co., Weissport, Pa., at $5.35 a cu. yd.

DRAINAGE DITCH.—Mankato, Minn.—T. L. Olmsted was awarded the contract March 30 for digging a drainage ditch in McPherson and Medo at 5 cts. a cu. yd. About 8,010 cu. yds. of earth are to be removed.

BROKEN STONE AND CEMENT.—Fort Hancock, N. J.—We are informed that Lt.-Col. Wm. Ludlow, U. S. Engr., Army Bldg., New York, received the following bids March 23 for furnishing broken stone and cement for concrete, as advertised in Engineering News: (1) being for 2,000 cu. yds of broken stone trap; (2) for 12,000 cu. yds. of limestone; (3) for 12,000 cu. yds. of granite; (4) for 8,000 bbls. of Rosendale cement; (5) for 10,000 bbls. Portland cement: Daniel J. Donovan, 150 Nassau St., New York (3) $1.39 a cu. yd.; Wm. Turner, 6 Beaver St., New York, (1) $1.28 a cu. yd.; Saml. E. Bouker, 110 Wall St., New York, (2) $1.00 a cu. yd.; Atlas Cement Co., 143 Liberty St., New York, (5) $1.94 a bbl., Atlas brand; Jacob E. Conklin, 135 Front St., New York, (1) $1.04 a cu. yd.; Standard Silica Cement Co., 66 Maiden Lane, New York, (5) $1.80 a bbl., Champion brand; Chas. Frey, Jr., 137 N. 29th St., (1) $1.50, (2) $1.20 a cu. yd.; Walter C. Butler, 120 Liberty St., New York, (2) $1.14, (4) 66 3-5 cts. a bbl., old Newark brand; Lawrenceville Cement Co., 26 Cortlandt St., New York, (4) 80 cts. a bbl.; New York & Rosendale Cement Co., 280 Broadway, New York, (4) 69 8-9 cts. a bbl.; Union Akron Cement Co., 141 Erie St., Buffalo, N. Y., (4) $1.06 a bbl.; Charles W. Hall, 27 William St., New York, (5) $1.74 a bbl., Steel brand, and Fiske Bros. Refining Co., 59 Water St., New York, (5) $1.94 9-10 cts. a bbl., Saylor's brand.

COPPER WIRE.—Washington, D. C.—The following bids were received last week by Maj. Robt. Craig, Ch. Disbursing Officer, Signal Office, in response to a circular letter for furnishing about 100 miles of insulated copper wire: Western Electric Co., New York, No. 12, $50 a mile; No. 14, $37.40; No. 16, $27.25 a mile; No. 18, $22.60; 20 miles in 10 days and balance in 30 days. James H. Callender, New York, weatherproof, No. 12, 16¾ cts. a lb.; No. 14, 18¼ cts.; 16, 19¼ cts.; 18, 21¼ cts. Rubber covered wire, 12, $10.45 for 1,000 ft.; 14, $7.75; 16, $6.87; 18, $6; time, 14 days. James S. Barron & Co., New York, No. 12, 16¾ cts. lb.; 14, 18¼ cts.; 16, 19¾ cts.; 18, 21¼ cts.; time, 7 to 10 days. The Simplex Electrical Co., New York, 25 miles or less, No. 14, rubber covered, $40.60 a mile; 7 miles No. 14, simplex weatherproof, $27.38 a mile; 3 braid waterproof, 16, 19¾ cts.; 18, 21¼ cts. Standard Underground Co., Pittsburg, Pa., weatherproof, No. 12, 16¾ cts. a lb.; 14, 18¼ cts.; 16, 19¼ cts.; No. 18, 21¼ cts. The Safety Insulated Wire & Cable Co., New York, rubber, No. 12, $10 per 1,000; 14, $7; 16, $5; 18, $4; 25,000 ft. a day. The Okonite Co., Ltd., New York, No. 12, $128 a mile; 14, $92; 16, $73; 18, $51; 20 miles in 23 days or 100 miles in 90 days. New York Insulated Wire Co., New York, No. 12, $8.40 per 1,000; 14, $6.40; 20 miles of No. 12 in 10 days and 30 miles per week; 20 miles No. 14 in 1 week and 30 miles per week f. o. b.; Wallingford, Conn. Washburn & Moen Mfg. Co., Philadelphia, Pa., bare wire, 14¼ cts. per lb.; 14, 14¾ cts.; 16, 15¼ cts.; 18, 16 cts.; triple braid, 12, 16¾ cts.; 14, 18¼ cts.; 16, 19¾ cts.; 18, 21¼ cts.; rubber, 12, $11.90 a 1,000 ft.; 14, $9.85; 16, $8; 18, $6.75; rubber, 12, $9.90; 14, $7.75, 16, $7; 18, $6; 11-case cable, 12, $22.50; 14, $19.50; 16, $16.50; 18, $14.50. Delivery in Washington, D. C., 100,000 ft. per day beginning 2 weeks after order.

SIDEWALKS.—Meridian, Miss.—E. H. Dial, Mayor, writes us that the following contract was awarded March 21 to Rubush & Dobbs, of this city, for brick sidewalk improvements: Sidewalk paving, 14,000 sq. yds., 47½ cts. a sq. yd.; curbing, 1,000 cu. yds., $6.19 a cu. yd.; gutters, 5,000 sq. yds., 67½ cts. a sq. yd.; crosswalks or street crossings, 1,300 sq. yds., 95 cts. a sq. yd., and 10,000 cu. yds. of sidewalk grading at 19 cts. a cu. yd.; total, $21,009. W. G. Meyers, Cy. Engr.

GRADING.—Omaha, Neb.—The board of public works has awarded a contract to Lamoreaux Bros. at 8 1-5 cts. a cu. yd. for grading in a number of streets. The other bidders were Connelly & Shaw, 11 cts.; C. H. Mahoney, 11 cts.; F. J. Peterson, 12 99-100 cts.; Western Construction Co., 11¾ cts.; Daniel Hannon, 10 9-10 cts.; Hamil & Sons, 9 cts.

MACADAMIZING.—Independence, Mo.—It is stated that the county court has awarded the contract for two miles of macadamizing for Lee's Summit Road to Collier Bros. at $1.06¾ cts. a sq. yd., and for two miles of the Atherton Road at $1.09 a sq. yd.

PAVING, ETC.—Indianapolis, Ind.—The following lowest bids were received March 28 for paving certain streets. B. J. T. Jeup, Cy. Engr.: Asphalt roadway on 11th St., from Capitol Ave. to Senate Ave., Western Paving & Supply Co., with Parkhurst curb, $3.92 a sq. yd.; with stratified curb, $3.98 a sq. yd.; asphalt on New Jersey St., from 16th to 19th St., Indiana Bermudez Asphalt Co., stratified curb, $4.80, cement curb, $4.75; asphalt pavement on 13th St., from Illinois to Senate Ave., Indiana Bermudez Asphalt Co., stratified curb, $3.89, cement curb, $3.84; asphalt pavement on Washington St., from Rural to the Belt Railroad, stratified curb, $5.78, cement curb, $5.78; asphalt on 13th St., from Central to College Ave., Warren-Scharf Asphalt Paving Co., stratified curb or combined curb, $5.41; asphalt pavement on 13th St., from Delaware to Central Ave., Indiana Bermudez Asphalt Co., stratified curb, $3.41, cement curb, $3.35; asphalt on 13th St., from Meridian to Illinois St., Western Paving & Supply Co., combined curb and gutter, $3.22, stratified curb, $3.27; wooden block pavement on 10th St., from Meridian to Illinois St., Hoosier Construction Co., with hemlock blocks, $2.73, short leaf yellow pine, $2.88, long leaf yellow pine, $2.96; wooden block on 10th St., from Illinois to Senate Ave., Hoosier Construction Co., hemlock blocks, $3.21, short leaf yellow pine, $3.52, long leaf, $3.62; wooden block pavement on Southeastern Ave., from Washington St. to State Ave., Hoosier Construction Co., hemlock blocks, $5.08, short leaf yellow pine, $5.51, long leaf, $5.63; wooden block on Pratt St., from Delaware to Alabama St., Hoosier Construction Co., hemlock blocks, $3.32, short leaf yellow pine, $3.51, long leaf, $3.62; wooden block pavement on Pratt St., from Alabama to Fort Wayne Ave., Hoosier Construction Co., hemlock blocks, $2.59, short leaf yellow pine, $2.72, long leaf, $2.80. The city engineer has recommended rejection of the bids for asphalt paving in Washington St. from Rural St. to the Belt Railroad, and for that in New Jersey St., from 16th to 19th St.

ENGINEERING MATERIAL PRICES.

TRACK MATERIALS—
- New York—Angle bars, 1.10 cts. to 1.15 cts: spikes, 1.45 cts. to 1.55 cts.; track bolts, hexagonal, 1.80 cts. to 1.85 cts.; square, 1.70 cts. to 1.75 cts.
- Chicago—Angle bars, 1.15 cts. to 1.25 cts.; spikes, 1.50 cts. to 1.60 cts.; track bolts, hexagonal, 1.90 cts. to 2.00 cts.; square, 1.80 to 1.90 cts.

RAILS, STEEL—
- New York, new, $19.00 to $20.00; old iron, $12.00 to $12.50; steel, $14.50 to $15.50.
- Chicago, new, $20.00 to $22.50; old iron, $11.50 to $12.00; steel, $8.50 to $9.75.
- Pittsburg, new, $18.00 to $19.00; old iron, $12.50; steel, $10.50.

STRUCTURAL STEEL—
- New York—Beams, 1.30 cts. to 1.35 cts.; channels, 1.30 cts. to 1.35 cts.; tees, 1.35 cts. to 1.40 cts.; angles, 1.15 cts. to 1.20 cts.; plates, 1.25 cts. to 1.30 cts.; rivets, iron, 2.25 cts. to 2.50 cts.; steel, 1.75 cts. to 1.85 cts.; universal mill plates, 1.15 cts. to 1.20 cts.; tank, 1.20 cts. to 1.30 cts.; shell, 1.30 cts. to 1.40 cts.; flange, 1.60 cts. to 1.75 cts.; firebox, 2.25 cts. to 2.50 cts.
- Chicago—Beams, 1.30 cts. to 1.45 cts.; channels, 1.30 cts. to 1.45 cts.; tees, 1.35 cts. to 1.50 cts.; angles, 1.15 cts. to 1.25 cts.; universal mill plates, 1.25 cts. to 1.30 cts.; tank, 1.10 cts. to 1.20 cts.; shell, 1.45 cts. to 1.55 cts.; flange, 1.20 cts. to 1.40 cts.; firebox, 1.70 cts. to 2.00 cts.
- Pittsburg—Beams, 1.25 cts. to 1.30 cts.; channels, 1.25 cts. to 1.30 cts.; tees, 1.15 cts. to 1.20 cts.; angles, 1.00 ct. to 1.15 cts.; universal mill plates, 1.05 cts. to 1.15 cts.; tank, 1.00 ct. to 1.10 cts.; shell, 1.15 cts.; flange, 1 10 cts. to 1.15 cts; firebox, 1.50 cts. to 2.75 cts.

MERCHANT STEEL—
- Machinery, per lb., 1.90 cts. to 2.00 cts.
- Cast, best in small lots, per lb., 5 cts. to 7 cts.
- Sheet, per lb., 8½ cts.

IRON—
- Pig Iron:
  - New York, No. 1, $11.00 to $11.50; No. 2, $10.50 to $11.00.
  - Chicago, No. 1, $11.00 to $12.50; No. 2, $11.00 to $12.00
  - Pittsburg, No. 1, $10.50 to $11.50; No. 2, $9.40 to $10.00.
- Bar Iron:
  - New York, common, 1.05 cts. to 1.11 cts.; refined, 1.15 cts. to 1.20 cts.
  - Chicago, common, 1.05 cts. to 1.10 cts.; refined, 1.10 cts. to 1.15 cts.
- Sheets:
  - American, per lb., 4 cts. to 4½ cts.
  - Russia, per lb., 10½ cts. to 11½ cts.

LUMBER—
- New York:
  - Hemlock timber, 20 ft. and under, per M, $12.00 to $12.50.
  - Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 4½ cts. to 4¾ cts.
  - Spruce, special cargoes, per M, $15.00 to $17.50.
  - Yellow pine, random cargoes, $14.50 to $17.00.
  - North Carolina pine, $2.25 to $2.40 advance over Norfolk rates.
- San Francisco:
  - Oregon pine, per M, $15.50 to $17.50.
  - Redwood, per M, $17.00 to $19.00.
  - Redwood tank stock, up to 10 ft., $21.00 to $24.00.

GENERAL MATERIALS—
- Lead, New York, 3.72½ cts. to 3.80 cts.
- Nails, Pittsburg, 1.40 cts.
- Solder, per lb., 9 cts. to 11½ cts.
- Spelter, per lb., 3.90 cts. to 4.25 cts.
- Copper, ingots, 11.58 cts. to 12.00 cts.
- Granite, rough, New York, cu. ft., 40 cts. to 50 cts.
- Limestone, New York, cu. ft., 70 cts. to 80 cts.
- Ohio freestone, New York, cu. ft., 85 cts. to 90 cts.
- Slate, Penn. block, per square, $4.00 to $5.00.
- White lead, American, per lb., 5½ cts. to 6 cts.
- Lime, common state, per bbl., 70 cts.

INDUSTRIAL NOTES.

THOMAS CARLIN'S SONS, Allegheny, Pa., are reported to have a large order from the government for machinery to be used for fortifications.

THE JACKSON & SHARP CO., Wilmington, Del., is reported to have the contract to build 20 double-decked trolley cars for a European railway.

THE DETROIT GRAPHITE MFG. CO., Detroit, Mich., reports that its sales for the first three months of 1898 were more than 100% greater than for the corresponding period of 1897.

THE WESTINGHOUSE AIR BRAKE CO., during the month of March, 1898, manufactured, sold and shipped from its works at Wilmerding, Pa., 16,628 sets of air brakes for freight cars.

THE SHULTZ BRIDGE & IRON CO., McKee's Rocks, Pa., is said to have received a $100,000 contract from the Pittsburg & Lake Erie R. R. for the construction of a new train shed on the South Side, Pittsburg.

THE WESTINGHOUSE MACHINE CO., Pittsburg, Pa., is furnishing 12 engines for the lighting plants on a new line of steamers for the Yukon River, Alaska, now being built by the Moran Bros. Co., at Seattle, Wash.

MR. WILLIS SHAW, dealer in contractors' machinery, formerly located at 506 New York Life Bldg., Chicago, has moved his office to Room 616 in the same building, instead of to 633 Marquette Bldg., as previously announced.

THE BRADLEY PULVERIZER Co., 92 State St., Boston, Mass., has received an order from the Bonneville Cement Co., 261 Broadway, New York, whose works were recently burned, for five new Griffin mills for its new plant.

WM. KEMP & SON, of the Troy Brass Foundry, 2129 to 2137 Sixth Ave., Troy, N. Y., are reported to have a large order for brass castings for searchlights, which the General Electric Co. is building for the United States Navy Department.

THE RICHMOND LOCOMOTIVE AND MACHINE WORKS, Richmond, Va., has orders for six 10-wheel freight engines for the St. Louis Southwestern Ry. and one mogul locomotive for the Chicago Great Western Ry., according to report.

THE SAFETY CONDUIT CO., Pittsburg, Pa., has an order for 30,000 ft. of iron armored electrical conduits for the United States appraisers' warehouse, in New York, and 50,000 ft. for the Prudential Bldg., at Atlanta, Ga., says a press report.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has a contract from the American Sugar Refining Co., Brooklyn, N. Y., to place a new fireproof roof over its No. 1 Boiler House. The roof will be fireproof, consisting of steel trusses covered with corrugated iron.

THE NATIONAL FOUNDRY & MACHINE CO., Louisville, Ky., has recently built three 18 x 42-in. Corliss engines, and now has an order for two Corliss engines of the same dimensions from the American Tobacco Co., Louisville. Mr. R. M. Losey, Secy. and Treas., advises us that they are busy at present in all departments.

THE SCHOEN PRESSED STEEL CO., of Pittsburg, Pa., has an order for 200 steel cars for the Northwest System of the Pennsylvania Lines west of Pittsburg. Mr. G. L. Potter, Superintendent of Motive Power, Fort Wayne, Ind., who sends us this information, states that the drawings for these cars have been prepared by the builders.

DIAMOND TRUCK & CAR GEAR CO., Kingston, N. Y., manufacturers of electric street car trucks, went into the hands of receivers March 25 on application of its directors for voluntary dissolution of the company. Messrs. Louis B. Hasbrouck, New York, and John E. Kraft, Kingston, were appointed receivers. Liabilities, $34,039; nominal assets, $92,245.

THE EDWARD P. ALLIS CO., Milwaukee, Wis., is reported to have the contract for six 6,000-HP. Reynolds-Corliss vertical engines for the Metropolitan Traction Co., New York, to cost $500,000, and to be completed within the year. The company is also said to have a contract for one 1,100-HP. engine of a similar type for Ludwig Loewe & Co., Berlin, Germany.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, Pa., is said to have the contract for the entire equipment of machinery and electrical apparatus for an electric lighting plant at Punta Arenas, Chili; also the equipment for the new shop of the Boston & Maine R. R., at Camden, Mass., consisting of two giant electric cranes, two gas engines and several electric motors.

THE BALDWIN LOCOMOTIVE WORKS, Philadelphia, is reported to have the order for four high-speed passenger locomotives and 10 freight locomotives for the Lehigh Valley R. R. An order for six consolidation freight locomotives has also been received from the Cia F. C. del Huellero de la Robla a Valmaseda, Spain, an iron mining company, which will use them for hauling ore trains.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., has just completed for the Morse Wool Treating Co., at Norton, Mass., an extensive plant for purifying wool. The buildings are of a very substantial character, entirely fireproof, and the floors throughout the whole plant are of beams and corrugated iron arches, to carry the excessive loads common to warehouse construction. The roofs are of patent anti-condensation corrugated iron.

COLLINS & NORTON, Springfield, Mass., have secured the contract for the steel roof for the Worcester Purification Works, Worcester, Mass., for which Mr. J. Edward Fuller, Jr., has the general contract; also a contract from the town of Palmer and the Palmer & Monson St. Ry. for a steel bridge of two spans to cross the Swift River in Bondsville, Palmer, Mass., for highway and street railway traffic, and a contract for two steel bridges for the town of Manchester, Me.

THE TERRE HAUTE CAR & MFG. CO., of Terre Haute, Ind., has an order for 85 gondola coal cars of 80,000 lbs. capacity for the Vandalia Line. Mr. W. C. Arp, Superintendent of Motive Power, writes us that they will have 44-in. sides, and be moulded on diamond trucks, with metal spring planks. The Pennsylvania R. R. standard pressed steel truck and body bolsters will be used. The axles will be of M. C. B. pattern, with journals 4¼

× 8 ins. The fittings will include Janney couplers, Graham draft rigging, Westinghouse quick-acting air brake and 2-in. National hollow brakebeams.

GEO. P. NICHOLS & BRO., The Monadnock, Chicago, who in addition to representing the Jeffrey Mfg. Co. in the West, are also the Western sales agents for electric cranes and electrical apparatus manufactured by Pawling & Harnischfeger, Milwaukee, Wis., have recently made the following sales: B. J. Arnold, a 15-ton crane for the Imperial Electric Light, Heat & Power Co., St. Louis; a 15-ton crane to the Cincinnati Electric Co., and a crane of special design to the Midvale Steel Co., of Philadelphia, this being the ninth crane which Pawling & Harnischfeger have furnished to this firm, and a 12-ton crane to Fairbanks, Morse & Co.

THE WEBER GAS & GASOLINE ENGINE CO., of Kansas City, Mo., writes us that there is a common but mistaken impression that gasoline engines will not work at high altitudes, but that several of its engines are working satisfactorily at altitudes ranging as high as 12,000 ft. above sea level. The following is from a letter written to this firm by Mr. Frank A. Maxwell, U. S. Deputy Mineral Surveyor, of Georgetown, Colo.:

"The 10-HP. Weber gasoline hoist has been set up over a shaft underground, 1,100 ft. from the mouth of the tunnel. The exhaust is carried outside by a 4-in. galvanized iron pipe. We began hoisting from a depth of 60 ft., and are now down 175 ft. We only hoist about 25 to 40 buckets per day, as we are still sinking, and consume about 3 gallons of gasoline. The mine is situated at an altitude of 10,000 ft. above sea level."

THE GENERAL ELECTRIC CO., Schenectady, N. Y., has furnished the complete electrical equipment of the factory of the Miami Cycle & Mfg. Co., at Middletown, O., which has a capacity of 1,200 high grade bicycles each week. The entire factory is run by electricity, furnished by the Middletown Electric Light & Power Co., whose plant is one mile distant. The electrical equipment consists of one 20 HP. and two 10 HP. transformers; three 20 HP. motors, each driving a 3-in. shaft, 210 ft. long, which together run 84 machines; two 10 HP. motors, one of which runs 26 machines; two 30 HP. motors belted to two lines of 2½-in. shafting, each 93 ft. long; one 30 HP. driving a suction fan; a 5 HP. motor driving two plating dynamos and one 5 HP. motor driving a 2-in shaft, 110 ft. long. The monocyclic system is used and the motors are induction motors, without commutators, brushes, collector rings or moving contacts.

THE BROWN HOISTING & CONVEYING MACHINE CO., Cleveland, O., shipped from its plant one day last week a solid train of 17 cars of machinery to Philadelphia, at which port it was loaded on the steamer "Cothele" for Mariopol, Russia. This shipment represents three Brown patent bridge tramways for the handling of ore for a large steel works at Mariopol, these bridges being driven by electricity. On the same date a similar, but smaller, shipment was made via the New York & Mediterranean Steamship Co., New York, to Trieste, Austria, for the Krainische Industrie Gesellschaft. The company, through its New York office, has just closed a contract with the United States Government for four separate coal handling plants for the navy department for coaling battleships, two of these plants to be located at Key West and two at Dry Tortugas, each plant consisting of two of Brown's patent bridge tramways with self-filling buckets of two tons capacity each, making eight bridges in all. The contract price was $151,000, and was awarded to this company, it is claimed, although its bid was $60,000 higher than the lowest bidder. Five months are allowed in which to complete the work.

WALKER COMPANY, Cleveland, O., has secured a suite of offices on the 16th floor of the Commercial Cable Bldg., 18-20 Broad St., New York. Among the foreign orders received are twenty double No. 3-S street car equipments, 3 single No. 3-S equipments and 18 double No. 3-N equipments for Paris, besides four 150 K-W. belted generators with two generator panels. Bagnall & Hilles, Yokohama, Japan, have ordered two 25-K-W. direct connected generators for Singapore. Recent domestic orders include two 150-K-W. 3-phase synchronous motors for the Lachine Rapids Power Co.; a 700-K-W. alternator, single-phase, for the Buffalo & Niagara Falls Electric Light & Power Co.; two 400-K-W. belt-driven generators for the Syracuse Construction Co., and one 120-K-W. belted generator for the Northern Electric Co., Baltimore, Md.——The Norton & Attleboro R. R., Attleboro, Mass., has purchased four double No. 4-A-S and two double No. 5-S equipments, besides a 250-K-W. direct connected railway generator. The Northern Electric Co., of Baltimore, has ordered 100 Walker arc lamps, making in all 300 in three months. ——The company has also recently taken a contract from the Government to build three disappearing gun carriages for 8-in. rifles; they are to be of the Crozier type, 1896 model.

THE SPRAGUE ELECTRIC CO., New York, announces the following appointments of agents: McCarthy Bros. & Ford, Caxton Bldg., Buffalo; Morton, Reed & Co., Baltimore; Walker & Kepler, Philadelphia; Pettingell-Andrews Company, Boston. The company reports that its Lundell horseless carriage motor is meeting with considerable success, both in this country and in Europe. In London the Lundell motor equipment has recently been placed upon the mail-run service, where it is claimed to be giving excellent results. The company reports that the advance sales of its Lundell fan motors are greater than in any previous season. The Sprague automatic house elevator contains many ingenious features in its method of control. It is claimed that by means of its devices, the machine may be operated from any floor, or from the car itself. By merely pushing a button from any floor, the car is brought to that particular floor without any further manipulation of the controlling apparatus, and when a door is opened, it is impossible to operate the machine from any other point, or until the car has reached its destination, and the landing door finally closed. While the car is in operation, it is impossible to operate any of the buttons aside from the one initially connected, and there is also a mechanical locking device at each door preventing its operation except when the car is at corresponding landing.

THEY ALL READ IT!

Cheyenne, Wyo., Dec. 6, 1897.
Engineering News Publishing Co.,
New York.

Gentlemen: The value of your paper as an advertising medium was clearly proven by the effect of the news item you inserted about our replacing the old wooden pipe with new vitrified pipe.

About as soon as the "News" reached me one letter came from the Superintendent of the Experiment Station at Ogden, Utah, and another from a civil engineer in North Carolina, asking for full particulars about both the old and new pipe.

Yours truly,
WALTER D. PEASE, County Engineer.

253 Broadway, New York, Nov. 8, 1897.
Engineering News Publishing Co.,
New York.

Gentlemen: In regard to the extension of time for receiving bids for the Toms River water-works, I wish to say that I shall not advertise this work any further, as I have had too many applications already.

In answer to the original notice printed in your paper of Oct. 28, at least 75 applications for specifications of above works were directly traceable to the notice printed in your paper, and many more were probably due to the same. The 50 copies of specifications were quickly exhausted and I do not desire to have any more applications.

I shall, however, be pleased to have you advertise any future work for which I wish bids.

Yours truly,
CHARLES J. EVERETT, JR.,
Mechanical Engineer.

A city official in Colorado wrote us some time ago that although their advertisement was published in leading papers in different cities (including three or four in New York) ENGINEERING NEWS was the ONLY paper referred to in the replies, and at least 110 of the letters of inquiry referred to having seen the notice in its columns.

WATER-WORKS.

RAT PORTAGE, ONT.

Sealed proposals will be received up to 6 o'clock p. m., April 20, 1898, for the supplying of material and the different works in connection with the construction of a system of water-works in the Town of Rat Portage, Ontario.

For particulars as to forms of proposal, specification, etc., apply to the undersigned.

R. HALL,
Chairman Board of Water-Works Commissioners.
J. CHALMERS, Engineer. 14-1t

SANITARY DISTRICT OF CHICAGO.

TO CONTRACTORS.

Sealed Proposals Addressed to the Board of Trustees of the Sanitary District of Chicago and Indorsed:

"PROPOSALS FOR SUPPLYING AND ERECTING THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY'S BRIDGE SUBSTRUCTURE ON CONTRACT SECTION EIGHT (8) OF THE MAIN DRAINAGE CHANNEL," will be received by the Clerk of the said Sanitary District at Room 1110 Security Building, Chicago, Illinois, until 12 m. (standard time) of Wednesday, the 18th day of May, A. D. 1898, and will be publicly opened by said Board of Trustees at the regular meeting held that day, or at a special meeting held for that purpose.

The work for which said tenders are invited is the furnishing, delivering and building in place one (1) center pier and two (2) wing abutments, as per plans and specifications to be furnished by the Chief Engineer.

Each bid must be accompanied by a certified check or cash to the amount of five hundred ($500) dollars. All certified checks must be drawn on some responsible bank doing business in the City of Chicago and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of five hundred ($500) dollars will be held by the Sanitary District until all of said bids have been canvassed and the contract awarded and signed, the return of said check or cash being conditioned upon any bidder to whom the award of said work may be made appearing within ten (10) days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for the work so awarded, and giving a bond satisfactory to the said Board of Trustees for the fulfillment of the same in the amount of three thousand ($3,000) dollars.

All bids must be upon the blank forms furnished by the Sanitary District.

No bid will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his experience and ability in this class of work, and that he can contral sufficient capital to enable him successfully to prosecute same in case the contract therefor shall be awarded him.

Bidders are required to state in their bids their individual names and places of residence in full.

Specifications and plans may be obtained at the office of the Chief Engineer, Room 1010 Security Building, Chicago, Illinois, on or after April 25th, 1898.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,
By WILLIAM BOLDENWECK,
President of its Board of Trustees.
Attest: JAS. REDDICK, Clerk.
Chicago, March 18, 1898. 14-2t

ROADS.

MILTON, MASS.

Sealed proposals for grading and surfacing about six miles of roads will be received by the special Committee on Street Widening of the Town of Milton, Mass., at the Selectmen's office, in the Town Hall building, until 12 M. of Saturday, April 30th, 1898.

The proposals must be made on a blank form furnished by the Board and must be accompanied by a certified check for five thousand dollars drawn on some National Bank in the City of Boston and made payable to the Treasurer of the Town of Milton.

Plans can be seen, specifications, form of contract and proposals obtained at the office of the Engineer, Town Hall, Milton, after Thursday, April 14, 1898.

A deposit of two dollars will be required for each set of specifications.

The Committee reserves the right to reject any and all bids, and reserves the right to award the contract as it deems for the best interests of the Town.

J. WALTER BRADLEE, Chairman; ALBERT A. BRACKETT, WILLIAM H. CHUBBUCK, ERNEST W. BOWDITCH, NATHANIEL T. KIDDER, THOMAS K. CUMMINS, Jr., JOHN R. LAWRENCE, Committee.
13-4t W. F. BATES, Engineer.

SETTLING BASINS, FILTERS AND DISTRIBUTION RESERVOIR.

ROCK ISLAND, ILLINOIS.

Notice is hereby given that sealed bids will be received at the office of the City Clerk at Rock Island, Illinois, until Monday, April 18, 1898, at 5 o'clock p. m., for the excavation and masonry for the Rock Island City waterworks, settling basins, filters and reservoir.

The City of Rock Island will purchase the cement to be used in this work and furnish same to the contractor for masonry.

The quantity of cement which will be required is approximately as follows: 1,000 bbls. of Rosendale cement and 3,000 bbls. of Portland cement.

Specifications for cement will be furnished to manufacturers and their agents on application.

Plans and specifications are on file in the office of the City Clerk at Rock Island, Ill., and the office of the Engineer, Room 23 Arcade Building, Peoria, Ill. Instructions to bidders and blank form of bid will be furnished on application to the City Clerk or the Engineer. Each bid must be accompanied by a certified check for an amount not less than 10 per cent. of the value of the work bid for.

The right is reserved to the City Council to reject any or all bids.

T. J. MEDILL, JR., Mayor.
A. D. HUESING, City Clerk.
JACOB A. HARMAN,
Consulting Engineer, Peoria, Ill.
Rock Island, Ill., March 24, 1898. 14-2t

FORT WASHINGTON, MD., March 10, 1898.—Sealed proposals, in triplicate, for sinking an ARTESIAN WELL at this post, will be received here until 12 m., April 9, 1898, and then opened. Information furnished on application. U. S. reserves right to accept or reject any or all proposals. Envelopes containing proposals should be endorsed "Proposals for Sinking Artesian Well," and addressed LAWRENCE S. MILLER, Q. M. 11-4t

U. S. ENGINEER OFFICE, Duluth, Minn., March 10, 1898.—Sealed proposals for building CONCRETE FOOTING BLOCKS for superstructure for south PIER, Duluth Ship Canal, will be received here until noon, April 11, 1898, and then publicly opened. Information furnished on application. CLINTON B. SEARS, Major, Engrs. 11-4t

VITRIFIED BRICK AND STONE CURBING.

TAMPA FLA.

Sealed proposals will be received at the office of the Board of Public Works, Tampa, Florida, until 12 o'clock, noon, Thursday, May 5th, 1898, for furnishing f. o. b. cars or wharf, in the city of Tampa, approximately, forty-seven (47,000) thousand superficial yards of vitrified paving blocks, and twenty-two (22,000) thousand lineal feet of granite curbing.

Also for sub-grading, rolling, furnishing, laying and setting granite curb and vitrified brick paving on the following streets in the city of Tampa, Seventh and Ninth Avenues, also Fourteenth, Fifteenth and Franklin streets. Approximate quantities conform to those given for materials above. Material and construction to be in accordance with specifications, profiles and grades on file at the office of the engineer on and after April 25th, 1898.

The right is reserved to reject any or all bids.

Board of Public Works,
W. B. HENDERSON, President.
J. N. HAZLEHURST, Chief Engr.
Tampa, Fla., April 2d, 1896. 14-4t

U. S. ENGINEER OFFICE, Telephone Building, Detroit, Mich., April 1, 1898.—Sealed proposals for "COMPLETING IMPROVEMENT OF CHANNEL CONNECTING THE WATERS OF THE GREAT LAKES BETWEEN CHICAGO, DULUTH AND BUFFALO," so far as respects shoals in Detroit River, will be received here until 12 o'clock noon (Standard time), Thursday, April 21, 1898, and then publicly opened. Information furnished on application. G. J. LYDECKER, Lt. Col., Engrs. 14-2t

PROPOSALS FOR MAKING REPAIRS TO CONCRETE PAVEMENTS.—Office of the Commissioners of the District of Columbia, Washington, April 1, 1898.—Sealed proposals will be received at this office until 12 o'clock m., on April 30, 1898, for making repairs to concrete pavements in the District of Columbia for a period of two years, from July 1st, 1898. Blank forms of proposals, specifications and all necessary information may be obtained at this office. JOHN W. ROSS, JOHN B. WIGHT, WILLIAM H. BLACK, Commissioners, D. C. 14-1t

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